



***CP-Polymer-Technik***

*Polyamid/Nylon*

*Sortiment/Product Range*

**WELLAMID**

# WELLAMID

Sonderausrüstungen/ *Specials*

leichtfließend/ *with high flowability*

schnellerstarrend / *fast solidifying*

UV-stabilisiert/ *UV-stabilised*

transluzente Qualitäten/*translucent qualities*

verschiedene Wärmestabilisierungen/  
*various kinds of stabilisation against heat ageing*

hydrolysestabilisiert/ *stabilised against hydrolysis*

mit verschiedenen Schlagzähmodifizierungen/  
*with various impact modifiers*

verschiedenste Füll- und Verstärkungsstoffvariationen/  
*various combinations of fillers and reinforcing materials*

flammgeschützt - halogenfrei und frei von rotem Phosphor/  
*with flame retardant-free of halogen and red phosphorus*

lebensmittelecht/ *for food applications*

lasermarkierbar/ *for laser printing*

UL- und C-UL approbiert/ *UL and C-UL approved*

Mit VDE Zeichenausweis/ *with VDE-approval*

mit verschiedenen Bahnzulassungen/  
*with various approvals for railway applications*

mit umfangreichen Automobilfreigaben/  
*with many automotive approvals*

## CP-Polymer-Technik

**Ihr Spezialist für  
technisch anspruchsvolle PA-Compounds**

***Your Specialist for  
High Quality Nylon Compounds***

# WELLAMID

Produktcode

WELLAMID 6000 = PA 6 / Nylon 6

WELLAMID 6600 = PA 66/ Nylon 66

- CP = 1-A Typqualität / *improved properties, based on virgin material*  
S = feinkristallin, schnellerstarrend / *finely crystalline, fast solidifying*  
HW = wärme- und wärmealterungsstabilisiert / *heat and heat ageing stabilised*  
DH = wärmestabilisiert mit verbesserter Wärmealterungsbeständigkeit / *heat and improved heat ageing stabilised*  
WW = wärme- und wärmealterungsstabilisiert mit erhöhter Dauergebrauchstemperatur / *heat- and heat ageing stabilised for a higher long term working temperature*  
HY = wärme/wärmealterungs- und hydrolysestabilisiert / *heat-, heat ageing and stabilised against hydrolysis*  
UV = spezielle UV-Stabilisierung / *functional UV-stabilization*  
T = transluzent / *translucent*  
L = Flammenschutzklasse V-2, UL-/C-UL approbiert, 1-A Typqualität / *flame protection grade V-2, UL-/C-UL recognised, improved properties, based on virgin material*  
V0 = Flammenschutzklasse V-0, V-0 nach UL94, WELLAMID 6600...-Qualitäten UL-approbiert, halogen und phosphor(rot)frei / *flame protection grade V-0, V-0 acc. to UL94, WELLAMID 6600...-grades UL approved, free from halogen & (red) phosphorus*  
VP = Versuchsprodukt / *developmental product*
- CF = carbonfaserverstärkt / *carbon fibre reinforced*  
GS = glaskugelgefüllt / *glass sphere filled*  
GV = glasfaserverstärkt / *glass fibre reinforced*  
GVZ = glasfaserverstärkt, verbesserte Oberfläche & Zähigkeit / *glass fibre reinforced, improved surface finish & impact resistance*  
GVS = glasfaser-/glaskugelgefüllt / *glass fibre-/ glass sphere filled*  
GVCF = glasfaser-/ carbonfaserverstärkt / *glass fibre-/ carbon fibre reinforced*  
MR = mineralverstärkt / *mineral filled*  
MRGV = mineral-/ glasfaserverstärkt / *mineral-/ glass fibre reinforced*  
MRCF = mineral-/ carbonfaserverstärkt / *mineral-/ carbon fibre reinforced*  
MX, MZ = spezielle Verstärkungs- und Füllstoffkombinationen / *functional combination of reinforcing and filling materials*
- .../42 = trockenschlagzäh / *polymer modified*  
.../50.. = verbesserte Schlagzähigkeit/ *improved impact strength*  
.../51 = hohe Schlag- und Kälteschlagzähigkeit/ *high impact strength*  
.../52 = hohe Schlag- und Kälteschlagzähigkeit/ *high impact strength*  
.../58 = sehr hohe Schlag- und Kälteschlagzähigkeit bis -40 °C / *high impact strength down to approx. -40°C*  
.../64 = wie ...58/ mit verbesserter Kerbschlagzähigkeit/ *as ... 58/ with improved notched impact strength*

## Bitte beachten Sie / Please note:

### Hinweis

Die Information dieser Broschüre und unsere anwendungstechnische Beratung in Wort, Schrift und Versuche erfolgt nach bestem Wissen, gelten jedoch als unverbindliche Hinweise. Die Beratung befreit Sie nicht von eigenen Prüfungen unserer Produkte im Hinblick auf ihre Eignung für die beabsichtigten Verfahren und Zwecke. Die Angaben sind als Richtwerte anzusehen, nicht als verbindliche Mittelwerte. Bitte beachten Sie, dass die Eigenschaften u.a. durch Verarbeitungsbedingungen, Werkzeuggestaltung und durch Einfärbungen beeinflusst werden können. Der Verkauf unserer Produkte erfolgt nach Maßgabe unserer jeweils aktuellen Allgemeinen Verkaufs- und Lieferbedingungen.

### Please note:

The information of this brochure and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty. Our advise does not release you from the obligation to verify the information currently provided and to test our products as to their suitability for the intended processes and uses. The figures should be regarded as guide values only and not as binding minimum values. It should be noted that, under certain conditions, the properties can be affected to a considerable extent by the processing conditions, the design of the mold/die and the coloring. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

## WELLAMID and CP-Polymer-Technik

As an efficient and independent family owned company CP-Polymer-Technik is specialised in the production and sales of Nylon injection moulding grades since more than 50 years. Presently we have focussed our development on WELLAMID grades for the E&E- and Automotive Industry. Nevertheless WELLAMID grades can be found in applications for the mechanical-, medical-, food- or toys industry as well.

One of the main jobs of CP-Polymer-Technik is to find feasible material solutions to solve the technical problems of our customers. This also includes the development of tailor-made specialities. Our many times long-term relationships with our customers are based on a constant high product quality of our WELLAMID grades. Therefore we are using only virgin material, a combination of innovative and fully developed technology and a competent technical know-how.

A huge number of approvals for many German and European car manufactures, many recognitions and certificates for the Electrical & Electronical-Business and a lot of additional applications in fields of toys- and food sectors give us the obligation to improve our high quality level continuously. It is part of our quality philosophy that we are certified acc. to ISO/ TS 16949 and to ISO 14001.

As we are looking for customer-based solutions, please have in mind that our product range can be seen as a basis for new combinations and developments as well. The complete WELLAMID program is based on our "CP" or "L" marked first-choice grades. Our product code is explained on the left page.

The solid, space-saving packaging that is environment friendly provides an optimum use of storage space. The actual units in use are shown on this page. Please be informed that WELLAMID-grades are pre-dried before packaging. The moisture content is measured and documented in our inspection certificates.

With short lead time WELLAMID-grades from CP-Polymer-Technik are shipped from Ritterhude to many destinations worldwide – reliable and fast.

**Interested? Please contact us, because we like to be your specialist for high quality Nylon compounds**



Verpackung/Packaging:

- 25 kg Sackware/Bags

- 100 kg Karton/Box

- 1000 kg Oktabin

- 1000 kg Big Bag

## WELLAMID und die CP-Polymer-Technik

Als ein unabhängiges und leistungsstarkes Familienunternehmen hat sich die CP-Polymer-Technik seit über 50 Jahren auf die Herstellung und den Vertrieb von Polyamid-Spritzgießgranulaten spezialisiert. Schwerpunkte der derzeitigen Entwicklung bilden dabei Anwendungen in den Bereichen der Elektro- & Elektronik- sowie in der Automobilindustrie. Unsere *WELLAMID*-Qualitäten finden auch in anderen Bereichen wie dem Maschinen- und Anlagenbau, der Medizintechnik, im Spielwarenereich und für Bauteile mit Kontakt zu Lebensmitteln ihre Anwendung.

Als CP-Polymer-Technik sehen wir eine unserer Hauptaufgaben darin, individuelle und kaufmännisch realisierbare Lösungen für die technischen Fragestellungen unserer Kunden zu erarbeiten. Dies umfasst auch die gemeinsame Entwicklung von maßgeschneiderten Spezialprodukten. Die Zusammenarbeit basiert dabei auf einer gleichbleibend hohen Produktqualität unserer *WELLAMID*-Werkstoffe. Ermöglicht wird dies durch den Einsatz hochwertiger Primärrohstoffe, der Kombination von ausgereifter mit innovativer Technologie, sowie einem umfangreichen technischen Know-How.

Zahlreiche Freigaben unserer *WELLAMID*- Qualitäten bei vielen deutschen und europäischen Automobilherstellern, weitreichende Listungen im Elektrobereich sowie Anwendungen in den Bereichen der Spielwaren- und Lebensmittelindustrie sind für uns eine Selbstverpflichtung, unsere hohen Qualitätsstandards stets weiter zu optimieren. Dieser Anspruch findet sich auch in unserer Zertifizierung gemäß ISO/TS 16949 wieder. Da für uns zu einer hohen Produktqualität auch eine umweltgerechte Fertigung gehört, sind wir ebenfalls nach ISO 14001 zertifiziert.

Die Basis des *WELLAMID*- Produktprogramms der CP-Polymer-Technik bilden die mit einem "CP" oder einem "L" gekennzeichneten 1-A Typqualitäten. Bitte beachten Sie, dass die in diesem Sortiment aufgeführten *WELLAMID*- Produkte nur die Basis immer neuer Kombinations- und Entwicklungsmöglichkeiten bilden, um im Bereich der Polyamide ein für die jeweilige Anwendung adäquate Lösung zu finden. Den *WELLAMID*-Produktcode finden Sie links erklärt.

Die von uns verwendeten stabilen, platzsparenden und umweltfreundlichen Verpackungen sind meist stapelbar und bieten so eine optimale Lagerflächennutzung. Die derzeitigen Verpackungseinheiten sehen Sie auf der linken Seite dargestellt. Unsere *WELLAMID*-Qualitäten werden vor dem Verpacken getrocknet und der Feuchtegehalt bei Verpackung in den jeweiligen Prüfzeugnissen dokumentiert.

Termingerecht und mit nur kurzen Lieferzeiten gehen die *WELLAMID* -Produkte von Ritterhude aus in viele Regionen der Welt - schnell und zuverlässig.

**Interessiert? Kontaktieren Sie uns, gerne sind wir Ihr Spezialist für technisch anspruchsvolle Polyamid Compounds**



**CP-Polymer-Technik, Ritterhude**



WELLAMID

## Mechanische Eigenschaften

### Mechanical Properties

| Bem.  | 50 mm/min                      |    |                               |    |                                 |     | 5 mm/min                        |     |                                   |     | Zug E-Modul<br>tensile modulus |       |
|---|--------------------------------|----|-------------------------------|----|---------------------------------|-----|---------------------------------|-----|-----------------------------------|-----|--------------------------------|-------|
|   | Streckspannung<br>yield stress |    | Streckdehnung<br>yield strain |    | Bruchdehnung<br>strain at break |     | Bruchdehnung<br>strain at break |     | Bruchspannung<br>tensile strength |     |                                |       |
| Maßeinheit / Unit   | MPa                            | %  | %                             | %  | %                               | %   | MPa                             | MPa | MPa                               | MPa |                                |       |
| Prüfvorschrift / Test method  | ISO 527                        |    |                               |    |                                 |     |                                 |     |                                   |     |                                |       |
| spritztrocken / dry (freshly moulded)   | X                              |    | X                             |    | X                               |     | X                               |     | X                                 |     | X                              |       |
| luftfeucht / moist (after conditioning)   |                                | X  |                               | X  |                                 | X   |                                 | X   |                                   | X   |                                | X     |
| <b>WELLAMID PA 6 unverstärkt / WELLAMID PA 6 unreinforced</b>   |                                |    |                               |    |                                 |     |                                 |     |                                   |     |                                |       |
| 6000 CP   | 85                             | 50 | 4                             | 20 | 15                              | >50 |                                 |     |                                   |     | 3000                           | 1100  |
| 6000 SCP  | 90                             | 60 | 4                             | 20 | 20                              | >50 |                                 |     |                                   |     | 3200                           | 1200  |
| 6000 SUVCP  | 90                             | 60 | 4                             | 20 | 20                              | >50 |                                 |     |                                   |     | 3200                           | 1200  |
| 6000 HWCP   | 88                             | 55 | 4                             | 20 | 15                              | >50 |                                 |     |                                   |     | 3000                           | 1200  |
| 6000 HWUVCP   | 88                             | 55 | 4                             | 20 | 15                              | >50 |                                 |     |                                   |     | 3000                           | 1200  |
| 6000 HWV0CP   | 85                             | 50 | 4                             | 12 | 5                               | 30  |                                 |     |                                   |     | 3300                           | 1300  |
| <b>WELLAMID PA 6 unverstärkt modifiziert / WELLAMID PA 6 unreinforced, impact modified</b>                |                                |    |                               |    |                                 |     |                                 |     |                                   |     |                                |       |
| 6000/42 CP  | 65                             | 40 | 4,5                           | 25 | >50                             | >50 |                                 |     |                                   |     | 2400                           | 1000  |
| 6000/50 CP  | 65                             | 40 | 4,5                           | 25 | >50                             | >50 |                                 |     |                                   |     | 2400                           | 1000  |
| 6000/50 HWUVCP  | 65                             | 40 | 4,5                           | 25 | >50                             | >50 |                                 |     |                                   |     | 2400                           | 1000  |
| 6000/58 HWUVCP  | 50                             | 35 | 5                             | 30 | >50                             | >50 |                                 |     |                                   |     | 2200                           | 900   |
| 6000/64 HWCP  | 50                             | 35 | 6                             | 35 | >50                             | >50 |                                 |     |                                   |     | 2000                           | 900   |
| <b>WELLAMID PA 6 glaskugelgefüllt / WELLAMID PA 6 glass sphere filled *</b>                               |                                |    |                               |    |                                 |     |                                 |     |                                   |     |                                |       |
| 6000 GS 15 HWCP   |                                |    |                               |    |                                 |     | 9                               | 25  | 70                                | 40  | 3500                           | 1400  |
| 6000 GS 20 HWCP   |                                |    |                               |    |                                 |     | 8,5                             | 23  | 75                                | 45  | 4000                           | 1700  |
| 6000 GS 30 HWCP   |                                |    |                               |    |                                 |     | 8,5                             | 20  | 80                                | 50  | 4500                           | 2000  |
| 6000 GS 30 HWUVCP   |                                |    |                               |    |                                 |     | 8,5                             | 20  | 80                                | 50  | 4500                           | 2000  |
| 6000 GS 40 HWCP   |                                |    |                               |    |                                 |     | 7                               | 18  | 82                                | 53  | 5200                           | 2400  |
| 6000 GS 50 HWCP   |                                |    |                               |    |                                 |     | 6,5                             | 18  | 85                                | 55  | 5800                           | 2700  |
| <b>WELLAMID PA 6 glaskugelgefüllt modifiziert / WELLAMID PA 6 impact modified, glass sphere filled*</b>   |                                |    |                               |    |                                 |     |                                 |     |                                   |     |                                |       |
| 6000/42 GS 30 HWCP  |                                |    |                               |    |                                 |     | 7                               | 20  | 52                                | 35  | 3100                           | 1300  |
| 6000/505 GS 30 HWCP   |                                |    |                               |    |                                 |     | 10,5                            | 28  | 65                                | 40  | 3600                           | 1700  |
| <b>WELLAMID PA 6 glasfaserverstärkt / WELLAMID PA 6 glass fibre reinforced *</b>                          |                                |    |                               |    |                                 |     |                                 |     |                                   |     |                                |       |
| 6000 GV 10 HWCP   |                                |    |                               |    |                                 |     | 3,5                             | 13  | 110                               | 60  | 5200                           | 3000  |
| 6000 GV 15 HWCP   |                                |    |                               |    |                                 |     | 3                               | 12  | 125                               | 70  | 6000                           | 3500  |
| 6000 GV 20 HWCP   |                                |    |                               |    |                                 |     | 3                               | 8   | 140                               | 90  | 7100                           | 4500  |
| 6000 GV 25 HWCP   |                                |    |                               |    |                                 |     | 3                               | 7   | 160                               | 100 | 8200                           | 5600  |
| 6000 GV 25 HWUVCP   |                                |    |                               |    |                                 |     | 3                               | 7   | 160                               | 100 | 8200                           | 5600  |
| 6000 GV 30 HWCP   |                                |    |                               |    |                                 |     | 3                               | 6   | 175                               | 110 | 9300                           | 6800  |
| 6000 GV 30 HWUVCP   |                                |    |                               |    |                                 |     | 3                               | 6   | 175                               | 110 | 9300                           | 6800  |
| 6000 GV 35 HWCP   |                                |    |                               |    |                                 |     | 3                               | 5   | 190                               | 130 | 10500                          | 7200  |
| 6000 GV 40 HWCP   |                                |    |                               |    |                                 |     | 2,5                             | 5   | 200                               | 140 | 11500                          | 8300  |
| 6000 GV 50 HWCP   |                                |    |                               |    |                                 |     | 2                               | 4,5 | 215                               | 160 | 14500                          | 10500 |
| <b>WELLAMID PA 6 glasfaserverstärkte Z-Qualitäten / WELLAMID PA 6 glass fibre reinforced Z-qualities*</b> |                                |    |                               |    |                                 |     |                                 |     |                                   |     |                                |       |
| 6000 GVZ 30 HWCP  |                                |    |                               |    |                                 |     | 3                               | 6   | 175                               | 110 | 9300                           | 6800  |
| 6000 GVZ 45 HWCP  |                                |    |                               |    |                                 |     | 2,5                             | 5   | 210                               | 150 | 13500                          | 9500  |

4 \*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar / Share of reinforcing materials and fillers can be varied.  
Obige Werte sind unverbindliche Richtwerte / The figures should be regarded as guide values only !



WELLAMID

|   | Mechanische Eigenschaften<br><i>Mechanical Properties</i> |   |         |                   |    |   |     |  | Thermische Eigenschaften<br><i>Thermal Properties</i>        |        |                                 |  |           |  |
|---|---|---|---------|-------------------|----|---|-----|--|--|--------|---------------------------------|--|-----------|--|
|   | Biege E-Modul<br><i>flexural modulus</i>                  | Schlagzähigkeit [Charpy]<br><i>impact strength (Charpy)</i> |         |                   |    | Kerb-schlag-zähigkeit [Charpy]<br><i>notched impact strength (Charpy)</i> |     | Schmelzpunkt<br><i>melting temperature</i> | Wärmeformbeständigkeit<br><i>heat deflection temperature</i> |        | Vicat B/50<br><i>Vicat B/50</i> | Therm. Längenausdehnungslängs<br><i>coeff. of linear thermal expansion</i> |           |  |
| Bem.  |   | +23°C   |         | - 40 °C           |    | +23°C   |     | Kofler                                     | HDT A  | HDT B  | 50 N                            | 23 - 80°C  |           |  |
| Maßeinheit / Unit   | MPa   | kJ/m <sup>2</sup>   |         | kJ/m <sup>2</sup> |    | kJ/m <sup>2</sup>   |     | ° C  | ° C  | ° C    | ° C                             | 10 <sup>-4</sup> / K   |           |  |
| Prüfvorschrift / Test method  | ISO 178   |   | ISO 179 |                   |    |   |     |  | -  | ISO 75 |                                 | ISO 306  | DIN 53752 |  |
| spritztrocken / dry (freshly moulded)   | X   |   | X       |                   | X  |   | X   | X  | X  | X      | X                               | X  |           |  |
| luftfeucht / moist (after conditioning)   |   | X   |         | X                 |    | X   |     | X  |  |        |                                 | X  |           |  |
| <b>WELLAMID PA 6 unverstärkt / WELLAMID PA 6 unreinforced</b>   |   |   |         |                   |    |   |     |  |  |        |                                 |  |           |  |
| 6000 CP   | 2500  |   | NB      | NB                |    |   | 7   | 20   | 223  | 65     | 170                             | 200  | 0,85      |  |
| 6000 SCP  | 2700  |   | NB      | NB                |    |   | 6   | 18   | 223  | 70     | 180                             | 200  | 0,85      |  |
| 6000 SUVCP  | 2700  |   | NB      | NB                |    |   | 6   | 18   | 223  | 70     | 180                             | 200  | 0,85      |  |
| 6000 HWCP   | 2500  |   | NB      | NB                |    |   | 7   | 20   | 223  | 65     | 170                             | 200  | 0,85      |  |
| 6000 HWUVCP   | 2500  |   | NB      | NB                |    |   | 7   | 20   | 223  | 65     | 170                             | 200  | 0,85      |  |
| 6000 HWV0CP   | 2800  |   | 50      | NB                |    |   | 5   | 15   | 223  | 65     | 170                             | 200  | 0,85      |  |
| <b>WELLAMID PA 6 unverstärkt modifiziert / WELLAMID PA 6 unreinforced, impact modified</b>                |   |   |         |                   |    |   |     |  |  |        |                                 |  |           |  |
| 6000/42 CP  | 1900  |   | NB      | NB                |    |   | 14  | 32   | 223  | 50     | 130                             | 170  | 0,9       |  |
| 6000/50 CP  | 1900  |   | NB      | NB                |    |   | 13  | 30   | 223  | 50     | 130                             | 170  | 0,9       |  |
| 6000/50 HWUVCP  | 1900  |   | NB      | NB                |    |   | 13  | 30   | 223  | 50     | 130                             | 170  | 0,9       |  |
| 6000/58 HWUVCP  | 1800  |   | NB      | NB                | NB |   | 25  | 65   | 223  | 45     | 100                             | 170  | 0,9       |  |
| 6000/64 HWCP  | 1800  |   | NB      | NB                | NB |   | 70  | NB   | 223  | 45     | 100                             | 170  | 0,9       |  |
| <b>WELLAMID PA 6 glaskugelgefüllt / WELLAMID PA 6 glass sphere filled *</b>                               |   |   |         |                   |    |   |     |  |  |        |                                 |  |           |  |
| 6000 GS 15 HWCP   | 3000  |   | 25      | NB                |    |   | 5   | 13   | 223  | 70     | 170                             | 200  | 0,7       |  |
| 6000 GS 20 HWCP   | 3500  |   | 25      | NB                |    |   | 6   | 14   | 223  | 70     | 170                             | 200  | 0,65      |  |
| 6000 GS 30 HWCP   | 4000  |   | 30      | NB                |    |   | 6   | 15   | 223  | 80     | 190                             | 200  | 0,5       |  |
| 6000 GS 30 HWUVCP   | 4000  |   | 30      | NB                |    |   | 6   | 15   | 223  | 80     | 190                             | 200  | 0,5       |  |
| 6000 GS 40 HWCP   | 4500  |   | 40      | 75                |    |   | 6,5 | 16   | 223  | 80     | 190                             | 200  | 0,4       |  |
| 6000 GS 50 HWCP   | 5200  |   | 50      | 70                |    |   | 7   | 18   | 223  | 80     | 190                             | 200  | 0,35      |  |
| <b>WELLAMID PA 6 glaskugelgefüllt modifiziert / WELLAMID PA 6 impact modified, glass sphere filled*</b>   |   |   |         |                   |    |   |     |  |  |        |                                 |  |           |  |
| 6000/42 GS 30 HWCP  | 2600  |   | 50      | 80                |    |   | 7   | 17   | 223  | 70     | 180                             | 200  | 0,35      |  |
| 6000/505 GS 30 HWCP   | 3000  |   | 75      | NB                |    |   | 7   | 20   | 223  | 70     | 180                             | 200  | 0,35      |  |
| <b>WELLAMID PA 6 glasfaserverstärkt / WELLAMID PA 6 glass fibre reinforced *</b>                          |   |   |         |                   |    |   |     |  |  |        |                                 |  |           |  |
| 6000 GV 10 HWCP   | 4100  |   | 45      | 80                |    |   | 7   | 17   | 223  | 190    | 215                             | 215  | 0,4       |  |
| 6000 GV 15 HWCP   | 5000  |   | 52      | 95                |    |   | 8   | 20   | 223  | 190    | 215                             | 215  | 0,35      |  |
| 6000 GV 20 HWCP   | 6000  |   | 73      | 100               |    |   | 10  | 23   | 223  | 190    | 215                             | 215  | 0,25      |  |
| 6000 GV 25 HWCP   | 7100  |   | 82      | 105               |    |   | 12  | 25   | 223  | 200    | 220                             | 215  | 0,25      |  |
| 6000 GV 25 HWUVCP   | 7100  |   | 82      | 105               |    |   | 12  | 25   | 223  | 200    | 220                             | 215  | 0,25      |  |
| 6000 GV 30 HWCP   | 8200  |   | 92      | 110               |    |   | 15  | 30   | 223  | 210    | 220                             | 215  | 0,2       |  |
| 6000 GV 30 HWUVCP   | 8200  |   | 92      | 110               |    |   | 15  | 30   | 223  | 210    | 220                             | 215  | 0,2       |  |
| 6000 GV 35 HWCP   | 8800  |   | 98      | 110               |    |   | 20  | 35   | 223  | 215    | 220                             | 215  | 0,2       |  |
| 6000 GV 40 HWCP   | 9500  |   | 98      | 110               |    |   | 20  | 35   | 223  | 215    | 220                             | 215  | 0,2       |  |
| 6000 GV 50 HWCP   | 13000   |   | 102     | 113               |    |   | 23  | 36   | 223  | 215    | 220                             | 215  | 0,15      |  |
| <b>WELLAMID PA 6 glasfaserverstärkte Z-Qualitäten / WELLAMID PA 6 glass fibre reinforced Z-qualities*</b> |   |   |         |                   |    |   |     |  |  |        |                                 |  |           |  |
| 6000 GVZ 30 HWCP  | 8200  |   | 95      | 110               |    |   | 16  | 32   | 223  | 210    | 220                             | 215  | 0,2       |  |
| 6000 GVZ 45 HWCP  | 11500   |   | 100     | 110               |    |   | 22  | 35   | 223  | 215    | 220                             | 215  | 0,15      |  |

\*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar / Share of reinforcing materials and fillers can be varied.  
Obige Werte sind unverbindliche Richtwerte / The figures should be regarded as guide values only !



WELLAMID

## Elektrische Eigenschaften

### Electrical Properties

| Bem.  | Dielektrizitätszahl   |   | Dielekt. Verlustfaktor |      | Elekt. Durchschlagsfestigkeit |    | Vergl. Kriechwegbildung    |     | Spez. Durchgangswiderstand |                  | Spez. Oberflächenwiderstand |                  |
|---|-----------------------|---|------------------------|------|-------------------------------|----|----------------------------|-----|----------------------------|------------------|-----------------------------|------------------|
|   | relative permittivity |   | dissipation factor     |      | electric strength             |    | comperative tracking index |     | volume resistivity         |                  | surface resistivity         |                  |
| Maßeinheit / Unit   | 1 MHz                 |   |                        |      | kV/mm                         |    | CTI                        |     | Ohm cm                     |                  | Ohm                         |                  |
| Prüfvorschrift / Test method  | IEC 250               |   |                        |      | IEC 243-1                     |    | IEC 112                    |     | IEC 93                     |                  | **ISO 3915                  |                  |
| spritztrocken / dry (freshly moulded)   | X                     |   | X                      |      | X                             |    | X                          |     | X                          |                  | X                           |                  |
| luftfeucht / moist (after conditioning)   |                       | X |                        | X    |                               | X  |                            | X   |                            | X                |                             | X                |
| <b>WELLAMID PA 6 unverstärkt / WELLAMID PA 6 unreinforced</b>   |                       |   |                        |      |                               |    |                            |     |                            |                  |                             |                  |
| 6000 CP   | 3,5                   | 7 | 200                    | 3000 | 30                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000 SCP  | 3,5                   | 7 | 200                    | 3000 | 30                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000 SUVCP  | 3,5                   | 7 | 200                    | 3000 | 30                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000 HWCP   | 3,5                   | 7 | 200                    | 3000 | 30                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000 HWUVCP   | 3,5                   | 7 | 200                    | 3000 | 30                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000 HWV0CP   | 3,5                   | 6 | 240                    | 2500 | 30                            | 35 | 600                        | 600 | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 6 unverstärkt modifiziert / WELLAMID PA 6 unreinforced, impact modified</b>                |                       |   |                        |      |                               |    |                            |     |                            |                  |                             |                  |
| 6000/42 CP  | 3,5                   | 6 | 240                    | 2500 | 32                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000/50 CP  | 3,5                   | 6 | 240                    | 2500 | 32                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000/50 HWUVCP  | 3,5                   | 6 | 240                    | 2500 | 32                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000/58 HWUVCP  | 3,5                   | 6 | 240                    | 2500 | 32                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6000/64 HWCP  | 3,5                   | 6 | 240                    | 2500 | 32                            | 35 | 600                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 6 glaskugelgefüllt / WELLAMID PA 6 glass sphere filled*</b>                                |                       |   |                        |      |                               |    |                            |     |                            |                  |                             |                  |
| 6000 GS 15 HWCP   | 4                     | 6 | 200                    | 2000 | 35                            | 35 | 450                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GS 20 HWCP   | 4                     | 6 | 200                    | 2000 | 35                            | 35 | 450                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GS 30 HWCP   | 4                     | 6 | 200                    | 2000 | 35                            | 35 | 450                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GS 30 HWUVCP   | 4                     | 6 | 200                    | 2000 | 35                            | 35 | 450                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GS 40 HWCP   | 4                     | 6 | 200                    | 2000 | 35                            | 35 | 450                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GS 50 HWCP   | 4                     | 6 | 200                    | 2000 | 35                            | 35 | 450                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 6 glaskugelgefüllt modifiziert / WELLAMID PA 6 impact modified, glass sphere filled *</b>  |                       |   |                        |      |                               |    |                            |     |                            |                  |                             |                  |
| 6000/42 GS 30 HWCP  | 4                     | 6 | 200                    | 2000 | 35                            | 35 | 450                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000/505 GS 30 HWCP   | 4                     | 6 | 200                    | 2000 | 35                            | 35 | 450                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 6 glasfaserverstärkt / WELLAMID PA 6 glass fibre reinforced *</b>                          |                       |   |                        |      |                               |    |                            |     |                            |                  |                             |                  |
| 6000 GV 10 HWCP   | 4                     | 7 | 250                    | 2400 | 35                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 15 HWCP   | 4                     | 7 | 250                    | 2400 | 35                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 20 HWCP   | 4                     | 7 | 250                    | 2400 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 25 HWCP   | 4                     | 7 | 230                    | 2400 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 25 HWUVCP   | 4                     | 7 | 230                    | 2400 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 30 HWCP   | 4                     | 7 | 220                    | 2200 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 30 HWUVCP   | 4                     | 7 | 220                    | 2200 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 35 HWCP   | 4                     | 7 | 200                    | 2000 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 40 HWCP   | 4                     | 6 | 180                    | 1800 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GV 50 HWCP   | 4                     | 6 | 160                    | 1600 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 6 glasfaserverstärkte Z-Qualitäten / WELLAMID PA 6 glass fibre reinforced Z-qualities*</b> |                       |   |                        |      |                               |    |                            |     |                            |                  |                             |                  |
| 6000 GVZ 30 HWCP  | 4                     | 7 | 220                    | 2200 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6000 GVZ 45 HWCP  | 4                     | 6 | 160                    | 1600 | 40                            | 35 | 550                        |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |

6 \*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar / Share of reinforcing materials and fillers can be varied.  
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WELLAMID

## Sonstige Eigenschaften

Additional Properties

| Dichte<br><i>den-<br/>sity</i>                 | Brennbarkeit<br><i>flammability</i> |              |              |              | Feuchte-<br>aufnahme bis<br>Sätti-<br>gung<br><br><i>satura-<br/>tion<br/>value at</i> | Verarbeitungs-<br>schwindung<br>längs/quer<br><br><i>molding<br/>shrinkage<br/>parallel/ across</i> | Bemerkungen<br><br><i>additional remarks</i> |  |
|--|-------------------------------------|--------------|--------------|--------------|--|---|--|--|
|  | 0,8 mm                              | 1,6 mm       | 3,2 mm       | 23/50        |  |   |  |  |
| <b>Bem.</b>                                    |                                     |              |              |              |  | Platte 60x60x2<br>mm <sup>3</sup>   |  |  |
| <b>Maßeinheit / Unit</b>                       | <b>g/cm<sup>3</sup></b>             | <b>Stufe</b> | <b>Stufe</b> | <b>Stufe</b> | <b>%</b>   | <b>%</b>  |  |  |
| <b>Prüfvorschrift / Test method</b>            | <b>ISO<br/>1183</b>                 | <b>UL-94</b> |              |              |  | <b>DIN<br/>53495</b>  | <b>-</b>                                     |  |
| <b>spritztrocken / dry (freshly moulded)</b>   | <b>X</b>                            | <b>X</b>     | <b>X</b>     | <b>X</b>     | <b>X</b>   | <b>X</b>  | <b>X</b>                                     |  |
| <b>luftfeucht / moist (after conditioning)</b> |                                     | <b>X</b>     | <b>X</b>     | <b>X</b>     |  |   |  |  |

### WELLAMID PA 6 unverstärkt / WELLAMID PA 6 unreinforced

|             |      |     |     |     |     |     |         |         |  |
|-------------|------|-----|-----|-----|-----|-----|---------|---------|--|
| 6000 CP     | 1,13 |     | V-2 | V-2 | V-2 | V-2 | 2,5-3,3 | 0,8-1,2 |  |
| 6000 SCP    | 1,14 |     | V-2 | V-2 | V-2 | V-2 | 2,5-3,3 | 0,8-1,2 |  |
| 6000 SUVCP  | 1,14 |     | V-2 | V-2 | V-2 | V-2 | 2,5-3,3 | 0,8-1,2 |  |
| 6000 HWCP   | 1,13 |     | V-2 | V-2 | V-2 | V-2 | 2,5-3,3 | 0,8-1,2 |  |
| 6000 HWUVCP | 1,13 |     | V-2 | V-2 | V-2 | V-2 | 2,5-3,3 | 0,8-1,2 |  |
| 6000 HWV0CP | 1,15 | V-0 | V-0 | V-0 | V-0 | V-0 | 2,5-3,3 | 0,8-1,2 |  |

### WELLAMID PA 6 unverstärkt modifiziert / WELLAMID PA 6 unreinforced, impact modified

|                |      |  |    |    |    |    |         |         |                                    |
|----------------|------|--|----|----|----|----|---------|---------|------------------------------------|
| 6000/42 CP     | 1,1  |  | HB | HB | HB | HB | 2,5-3,3 | 0,8-1,2 | wärmestabilisiert/ heat stabilised |
| 6000/50 CP     | 1,1  |  | HB | HB | HB | HB | 2,5-3,3 | 0,8-1,2 | wärmestabilisiert/ heat stabilised |
| 6000/50 HWUVCP | 1,1  |  | HB | HB | HB | HB | 2,5-3,3 | 0,8-1,2 |                                    |
| 6000/58 HWUVCP | 1,06 |  | HB | HB | HB | HB | 2,5-3,3 | 0,8-1,2 |                                    |
| 6000/64 HWCP   | 1,09 |  | HB | HB | HB | HB | 2,5-3,3 | 0,8-1,2 |                                    |

### WELLAMID PA 6 glaskugelgefüllt / WELLAMID PA 6 glass sphere filled\*

|                   |      |  |    |    |    |    |         |       |  |
|-------------------|------|--|----|----|----|----|---------|-------|--|
| 6000 GS 15 HWCP   | 1,23 |  | HB | HB | HB | HB | 2,2-3   | 0,8-1 |  |
| 6000 GS 20 HWCP   | 1,27 |  | HB | HB | HB | HB | 2-2,5   | 0,8-1 |  |
| 6000 GS 30 HWCP   | 1,35 |  | HB | HB | HB | HB | 1,8-2,3 | 0,8-1 |  |
| 6000 GS 30 HWUVCP | 1,35 |  | HB | HB | HB | HB | 1,8-2,3 | 0,8-1 |  |
| 6000 GS 40 HWCP   | 1,46 |  | HB | HB | HB | HB | 1,5-2   | 0,8-1 |  |
| 6000 GS 50 HWCP   | 1,55 |  | HB | HB | HB | HB | 1,5-2   | 0,8-1 |  |

### WELLAMID PA 6 glaskugelgefüllt modifiziert / WELLAMID PA 6 impact modified, glass sphere filled \*

|                     |      |  |    |    |    |    |       |       |  |
|---------------------|------|--|----|----|----|----|-------|-------|--|
| 6000/42 GS 30 HWCP  | 1,33 |  | HB | HB | HB | HB | 1,5-2 | 0,8-1 |  |
| 6000/505 GS 30 HWCP | 1,32 |  | HB | HB | HB | HB | 1,5-2 | 0,8-1 |  |

### WELLAMID PA 6 glasfaserverstärkt / WELLAMID PA 6 glass fibre reinforced \*

|                   |      |  |    |    |    |    |         |          |                                       |
|-------------------|------|--|----|----|----|----|---------|----------|---------------------------------------|
| 6000 GV 10 HWCP   | 1,19 |  | HB | HB | HB | HB | 2-2,5   | 0,4/1,0  |                                       |
| 6000 GV 15 HWCP   | 1,23 |  | HB | HB | HB | HB | 2-2,5   | 0,3/0,9  |                                       |
| 6000 GV 20 HWCP   | 1,27 |  | HB | HB | HB | HB | 2-2,5   | 0,3/0,9  |                                       |
| 6000 GV 25 HWCP   | 1,32 |  | HB | HB | HB | HB | 2-2,5   | 0,2/0,8  |                                       |
| 6000 GV 25 HWUVCP | 1,32 |  | HB | HB | HB | HB | 2-2,5   | 0,2/0,8  |                                       |
| 6000 GV 30 HWCP   | 1,35 |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,8  | UL- approbiert/ UL- approved All.Col. |
| 6000 GV 30 HWUVCP | 1,35 |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,8  |                                       |
| 6000 GV 35 HWCP   | 1,41 |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,8  |                                       |
| 6000 GV 40 HWCP   | 1,46 |  | HB | HB | HB | HB | 1,5-2   | 0,15/0,7 |                                       |
| 6000 GV 50 HWCP   | 1,55 |  | HB | HB | HB | HB | 1,4-2   | 0,15/0,7 |                                       |

### WELLAMID PA 6 glasfaserverstärkte Z-Qualitäten / WELLAMID PA 6 glass fibre reinforced Z-qualities\*

|                  |      |  |    |    |    |    |         |          |                                       |
|------------------|------|--|----|----|----|----|---------|----------|---------------------------------------|
| 6000 GVZ 30 HWCP | 1,35 |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,8  | gute Oberfläche / good surface finish |
| 6000 GVZ 45 HWCP | 1,5  |  | HB | HB | HB | HB | 1,5-2   | 0,15/0,7 | gute Oberfläche / good surface finish |

\*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar / Share of reinforcing materials and fillers can be varied.  
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WELLAMID

## Mechanische Eigenschaften

### Mechanical Properties

| Bem.  | 50 mm/min                             |   |                                      |   |  |   | 5 mm/min                               |     |  |     |                                       |       |
|---|---------------------------------------|---|--------------------------------------|---|--|---|--|-----|--|-----|---------------------------------------|-------|
|   | Streckspannung<br><i>yield stress</i> |   | Streckdehnung<br><i>yield strain</i> |   | Bruchdehnung<br><i>strain at break</i> |   | Bruchdehnung<br><i>strain at break</i> |     | Bruchspannung<br><i>tensile strength</i> |     | Zug E-Modul<br><i>tensile modulus</i> |       |
| Maßeinheit / Unit   | MPa                                   |   | %                                    |   | %                                      |   | %                                      |     | MPa                                      |     | MPa                                   |       |
| Prüfvorschrift / Test method  | ISO 527                               |   |                                      |   |  |   |  |     |  |     |                                       |       |
| spritztrocken / dry (freshly moulded)   | X                                     |   | X                                    |   | X                                      |   | X                                      |     | X  |     | X                                     |       |
| luftfeucht / moist (after conditioning)   |                                       | X |                                      | X |  | X |  | X   |  | X   |                                       | X     |
| <b>WELLAMID PA 6 glasfaserverstärkte Qualitäten mit erhöhter Dauergebrauchstemperatur / WELLAMID PA 6 glass fibre reinforced qualities with higher long term working temperature*</b> |                                       |   |                                      |   |  |   |  |     |  |     |                                       |       |
| 6000 GV 30 WWCP   |                                       |   |                                      |   |  |   | 3                                      | 6   | 165                                      | 100 | 9000                                  | 6500  |
| <b>WELLAMID PA 6 glasfaserverstärkt modifiziert / WELLAMID PA 6 impact modified glass fibre reinforced *</b>  |                                       |   |                                      |   |  |   |  |     |  |     |                                       |       |
| 6000/42 GV 15 HWUVCP  |                                       |   |                                      |   |  |   | 4                                      | 10  | 100                                      | 65  | 5400                                  | 2600  |
| 6000/52 GV 15 HWCP  |                                       |   |                                      |   |  |   | 4                                      | 10  | 105                                      | 65  | 5800                                  | 3500  |
| 6000/52 GV 15 HWUVCP  |                                       |   |                                      |   |  |   | 4                                      | 10  | 105                                      | 65  | 5800                                  | 3500  |
| 6000/58 GV 15 HWUVCP  |                                       |   |                                      |   |  |   | 5                                      | 18  | 100                                      | 60  | 5400                                  | 3100  |
| 6000/42 GV 30 HWCP  |                                       |   |                                      |   |  |   | 4                                      | 7   | 120                                      | 80  | 8200                                  | 5200  |
| 6000/51 GV 30 HWCP  |                                       |   |                                      |   |  |   | 4                                      | 7   | 150                                      | 90  | 8500                                  | 5500  |
| <b>WELLAMID PA 6 carbonfaserverstärkt / WELLAMID PA 6 carbon fibre reinforced *</b>   |                                       |   |                                      |   |  |   |  |     |  |     |                                       |       |
| 6000 CF 10 HWCP   |                                       |   |                                      |   |  |   | 2                                      | 5   | 120                                      | 80  | 8500                                  | 5500  |
| 6000 CF 18 HWCP   |                                       |   |                                      |   |  |   | 2                                      | 4,5 | 160                                      | 100 | 13000                                 | 9500  |
| 6000 CF 30 HWCP   |                                       |   |                                      |   |  |   | 1,5                                    | 3,5 | 200                                      | 140 | 21000                                 | 16000 |
| <b>WELLAMID PA 6 mineralgefüllt &amp; mineral-/glasfaser- bzw. carbonfaserverstärkt / WELLAMID PA 6 mineral filled &amp; mineral/ glass fibre or carbon fibre reinforced *</b>        |                                       |   |                                      |   |  |   |  |     |  |     |                                       |       |
| 6000 MR 209 HWCP  |                                       |   |                                      |   |  |   | 7                                      | 20  | 75                                       | 40  | 4200                                  | 1800  |
| 6000 MR 309 HWCP  |                                       |   |                                      |   |  |   | 6                                      | 17  | 80                                       | 40  | 5100                                  | 2600  |
| 6000 MR 409 HWCP  |                                       |   |                                      |   |  |   | 5,5                                    | 14  | 90                                       | 50  | 5800                                  | 3400  |
| 6000 MR CF 15/15 HWCP   |                                       |   |                                      |   |  |   | 2                                      | 4,5 | 150                                      | 100 | 13000                                 | 9500  |
| 6000 MR GV 20/10 HWCP   |                                       |   |                                      |   |  |   | 3                                      | 8   | 110                                      | 60  | 7000                                  | 4300  |
| 6000 MR GV 25/15 HWCP   |                                       |   |                                      |   |  |   | 3                                      | 7   | 120                                      | 70  | 8000                                  | 5200  |
| 6000 MR GV 25/15 HWUVCP   |                                       |   |                                      |   |  |   | 3                                      | 7   | 120                                      | 70  | 8000                                  | 5200  |
| <b>WELLAMID PA 6 glasfaser-/glaskugelerstärkt / WELLAMID PA 6 glass fibre- / glass sphere reinforced*</b>   |                                       |   |                                      |   |  |   |  |     |  |     |                                       |       |
| 6000 GVS 8/25 HWCP  |                                       |   |                                      |   |  |   | 3                                      | 10  | 100                                      | 55  | 6000                                  | 3400  |
| 6000 GVS 10/20 HWCP   |                                       |   |                                      |   |  |   | 3,5                                    | 10  | 110                                      | 60  | 6200                                  | 3600  |
| 6000 GVS 10/20 HWUVCP   |                                       |   |                                      |   |  |   | 3,5                                    | 10  | 110                                      | 60  | 6200                                  | 3600  |
| 6000 GVS 20/10 HWCP   |                                       |   |                                      |   |  |   | 3                                      | 10  | 145                                      | 90  | 7500                                  | 5000  |
| 6000 GVS 20/20 HWCP   |                                       |   |                                      |   |  |   | 3                                      | 10  | 150                                      | 95  | 8000                                  | 5500  |
| <b>WELLAMID PA 6 glaskugel- glasfaserverstärkt modifiziert / WELLAMID PA 6 impact modified glass fibre-/ glass sphere reinforced*</b>   |                                       |   |                                      |   |  |   |  |     |  |     |                                       |       |
| 6000/42 GVS 8/25 HWCP   |                                       |   |                                      |   |  |   | 4                                      | 12  | 85                                       | 45  | 5000                                  | 2400  |
| 6000/42 GVS 10/15 HWCP  |                                       |   |                                      |   |  |   | 5                                      | 15  | 95                                       | 55  | 5000                                  | 2900  |
| 6000/42 GVS 15/15 HWCP  |                                       |   |                                      |   |  |   | 4                                      | 8   | 110                                      | 65  | 5800                                  | 3200  |
| <b>WELLAMID PA 6 Spezialprodukte / WELLAMID PA 6 specialities</b>   |                                       |   |                                      |   |  |   |  |     |  |     |                                       |       |
| 6000 MX 400 CP  |                                       |   |                                      |   |  |   | 3,5                                    | 10  | 120                                      | 70  | 7500                                  | 5500  |
| 6000 MZ 301 CP  |                                       |   |                                      |   |  |   | 3                                      | 10  | 120                                      | 70  | 7700                                  | 5600  |

8 \*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar / Share of reinforcing materials and fillers can be varied.  
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|   | Mechanische Eigenschaften<br><i>Mechanical Properties</i> |   |         |   |   |  |  |       | Thermische Eigenschaften<br><i>Thermal Properties</i> |  |   |         |           |
|---|---|---|---------|---|---|--|--|-------|---|--|---|---------|-----------|
|   | Biege E-Modul<br><i>flexural modulus</i>                  | Schlagzähigkeit [Charpy]<br><i>impact strength (Charpy)</i> |         | Kerb-schlag-zähigkeit [Charpy]<br><i>notched impact strength (Charpy)</i> |   | Schmelzpunkt<br><i>melting temperature</i> | Wärmeformbeständigkeit<br><i>heat deflection temperature</i> |       | Vicat B/50<br><i>Vicat B/50</i>                       | Therm. Längenausdehnungslängs<br><i>coeff. of linear thermal expansion</i> |   |         |           |
| Bem.                                    |   | +23°C   | - 40 °C | +23°C   |   | Kofler                                     | HDT A  | HDT B | 50 N  | 23 - 80°C  |   |         |           |
| Maßeinheit / Unit                       | MPa   | kJ/m <sup>2</sup>   |         | kJ/m <sup>2</sup>   |   | ° C  | ° C  | ° C   | ° C   | 10 <sup>-4</sup> / K   |   |         |           |
| Prüfvorschrift / Test method            | ISO 178   |   | ISO 179 |   |   |  |  |       | -   | ISO 75   |   | ISO 306 | DIN 53752 |
| spritztrocken / dry (freshly moulded)   | X   | X   | X       | X   | X | X  | X  | X     | X   | X  | X | X       |           |
| luftfeucht / moist (after conditioning) | X   | X   | X       | X   | X | X  | X  | X     | X   | X  | X | X       |           |

**WELLAMID PA 6 glasfaserverstärkte Qualitäten mit erhöhter Dauergebrauchstemperatur /**

*WELLAMID PA 6 glass fibre reinforced qualities with higher long term working temperature\**

|                 |      |    |     |  |  |    |    |     |     |     |     |     |
|-----------------|------|----|-----|--|--|----|----|-----|-----|-----|-----|-----|
| 6000 GV 30 WWCP | 8200 | 92 | 110 |  |  | 15 | 30 | 223 | 210 | 220 | 215 | 0,2 |
|-----------------|------|----|-----|--|--|----|----|-----|-----|-----|-----|-----|

**WELLAMID PA 6 glasfaserverstärkt modifiziert / WELLAMID PA 6 impact modified glass fibre reinforced \***

|                      |      |    |     |    |  |    |    |     |     |     |     |     |
|----------------------|------|----|-----|----|--|----|----|-----|-----|-----|-----|-----|
| 6000/42 GV 15 HWUVCP | 4900 | 50 | 85  |    |  | 12 | 24 | 223 | 170 | 200 | 200 | 0,3 |
| 6000/52 GV 15 HWCP   | 5200 | 50 | 90  |    |  | 13 | 27 | 223 | 170 | 200 | 200 | 0,3 |
| 6000/52 GV 15 HWUVCP | 5200 | 50 | 90  |    |  | 13 | 27 | 223 | 170 | 200 | 200 | 0,3 |
| 6000/58 GV 15 HWUVCP | 4800 | 70 | 95  | 60 |  | 22 | 42 | 223 | 170 | 200 | 200 | 0,3 |
| 6000/42 GV 30 HWCP   | 6800 | 60 | 90  |    |  | 13 | 27 | 223 | 180 | 200 | 200 | 0,2 |
| 6000/51 GV 30 HWCP   | 7200 | 90 | 105 |    |  | 16 | 32 | 223 | 180 | 220 | 200 | 0,2 |

**WELLAMID PA 6 carbonfaserverstärkt / WELLAMID PA 6 carbon fibre reinforced \***

|                 |       |    |    |  |  |   |    |     |     |     |     |      |
|-----------------|-------|----|----|--|--|---|----|-----|-----|-----|-----|------|
| 6000 CF 10 HWCP | 7500  | 30 | 60 |  |  | 6 | 14 | 223 | 190 | 215 | 200 | 0,4  |
| 6000 CF 18 HWCP | 11500 | 40 | 75 |  |  | 6 | 17 | 223 | 190 | 215 | 200 | 0,25 |
| 6000 CF 30 HWCP | 18500 | 42 | 78 |  |  | 7 | 18 | 223 | 210 | 220 | 200 | 0,25 |

**WELLAMID PA 6 mineralgefüllt & mineral-/glasfaser- bzw. carbonfaserverstärkt /**

*WELLAMID PA 6 mineral filled & mineral/ glass fibre or carbon fibre reinforced \**

|                         |       |    |     |  |  |   |    |     |     |     |     |      |
|-------------------------|-------|----|-----|--|--|---|----|-----|-----|-----|-----|------|
| 6000 MR 209 HWCP        | 3600  | NB | NB  |  |  | 8 | 20 | 223 | 70  | 180 | 190 | 0,75 |
| 6000 MR 309 HWCP        | 4000  | NB | NB  |  |  | 7 | 14 | 223 | 70  | 190 | 190 | 0,65 |
| 6000 MR 409 HWCP        | 5200  | 70 | 100 |  |  | 7 | 12 | 223 | 80  | 195 | 190 | 0,55 |
| 6000 MR CF 15/15 HWCP   | 11500 | 40 | 75  |  |  | 6 | 17 | 223 | 190 | 215 | 200 | 0,25 |
| 6000 MR GV 20/10 HWCP   | 6000  | 40 | 75  |  |  | 6 | 14 | 223 | 200 | 215 | 200 | 0,25 |
| 6000 MR GV 25/15 HWCP   | 7200  | 48 | 80  |  |  | 6 | 16 | 223 | 200 | 215 | 200 | 0,25 |
| 6000 MR GV 25/15 HWUVCP | 7200  | 48 | 80  |  |  | 6 | 16 | 223 | 200 | 215 | 200 | 0,25 |

**WELLAMID PA 6 glasfaser-/glaskugelverstärkt / WELLAMID PA 6 glass fibre/ glass sphere reinforced\***

|                       |      |    |    |  |  |     |    |     |     |     |     |      |
|-----------------------|------|----|----|--|--|-----|----|-----|-----|-----|-----|------|
| 6000 GVS 8/25 HWCP    | 5000 | 30 | NB |  |  | 4,5 | 10 | 223 | 180 | 215 | 200 | 0,25 |
| 6000 GVS 10/20 HWCP   | 5100 | 40 | NB |  |  | 5   | 11 | 223 | 180 | 215 | 200 | 0,25 |
| 6000 GVS 10/20 HWUVCP | 5100 | 40 | NB |  |  | 5   | 11 | 223 | 180 | 215 | 200 | 0,25 |
| 6000 GVS 20/10 HWCP   | 6500 | 60 | 95 |  |  | 8   | 18 | 223 | 200 | 215 | 200 | 0,2  |
| 6000 GVS 20/20 HWCP   | 7000 | 65 | 95 |  |  | 8   | 18 | 223 | 200 | 215 | 200 | 0,2  |

**WELLAMID PA 6 glaskugel- glasfaserverstärkt modifiziert /**

*WELLAMID PA 6 impact modified glass fibre-/ glass sphere reinforced\**

|                        |      |    |    |  |  |    |    |     |     |     |     |     |
|------------------------|------|----|----|--|--|----|----|-----|-----|-----|-----|-----|
| 6000/42 GVS 8/25 HWCP  | 4000 | 55 | NB |  |  | 9  | 18 | 223 | 160 | 200 | 185 | 0,3 |
| 6000/42 GVS 10/15 HWCP | 4000 | 60 | 95 |  |  | 10 | 25 | 223 | 160 | 200 | 185 | 0,3 |
| 6000/42 GVS 15/15 HWCP | 4700 | 55 | 85 |  |  | 9  | 17 | 223 | 160 | 200 | 185 | 0,3 |

**WELLAMID PA 6 Spezialprodukte / WELLAMID PA 6 specialties**

|                |      |    |    |  |  |   |    |     |     |     |     |      |
|----------------|------|----|----|--|--|---|----|-----|-----|-----|-----|------|
| 6000 MX 400 CP | 6700 | 50 | NB |  |  | 8 | 18 | 223 | 190 | 215 | 200 | 0,25 |
| 6000 MZ 301 CP | 6800 | 35 | NB |  |  | 6 | 14 | 223 | 200 | 215 | 200 | 0,35 |

\*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar / Share of reinforcing materials and fillers can be varied.  
Obige Werte sind unverbindliche Richtwerte / The figures should be regarded as guide values only !



WELLAMID

## Elektrische Eigenschaften

### Electrical Properties

| Bem.<br>Maßeinheit / Unit               | 1 MHz   |   |   |   | Elekt. Durchschlagsfestigkeit     |   | Vergl. Kriechwegbildung    |   | Spez. Durchgangswiderstand |   | Spez. Oberflächenwiderstand |   |
|---|---|---|---|---|-----------------------------------|---|----------------------------|---|----------------------------|---|-----------------------------|---|
|   | Dielektrizitätszahl<br><i>relative permittivity</i> |   | Dielekt. Verlustfaktor<br><i>dissipation factor</i> |   | kV/mm<br><i>electric strength</i> |   | comperative tracking index |   | volume resistivity         |   | surface resistivity         |   |
| Prüfvorschrift / Test method            | IEC 250   |   |   |   | IEC 243-1                         |   | IEC 112                    |   | IEC 93                     |   | **ISO 3915                  |   |
| spritztrocken / dry (freshly moulded)   | X   |   | X   |   | X                                 | X | X                          | X | X                          | X | X                           | X |
| luftfeucht / moist (after conditioning) |   | X |   | X |                                   | X |                            | X |                            | X |                             | X |

### WELLAMID PA 6 glasfaserverstärkte Qualitäten mit erhöhter Dauergebrauchstemperatur /

WELLAMID PA 6 glass fibre reinforced qualities with higher long term working temperature\*

|                 |   |   |     |      |    |    |     |  |                  |                  |                  |                  |
|-----------------|---|---|-----|------|----|----|-----|--|------------------|------------------|------------------|------------------|
| 6000 GV 30 WWCP | 4 | 7 | 220 | 2200 | 40 | 30 | 475 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
|-----------------|---|---|-----|------|----|----|-----|--|------------------|------------------|------------------|------------------|

### WELLAMID PA 6 glasfaserverstärkt modifiziert / WELLAMID PA 6 impact modified glass fibre reinforced \*

|                      |   |   |     |      |    |    |     |  |                  |                  |                  |                  |
|----------------------|---|---|-----|------|----|----|-----|--|------------------|------------------|------------------|------------------|
| 6000/42 GV 15 HWUVCP | 4 | 7 | 250 | 2000 | 40 | 35 | 550 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000/52 GV 15 HWCP   | 4 | 7 | 250 | 2000 | 40 | 35 | 550 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000/52 GV 15 HWUVCP | 4 | 7 | 250 | 2000 | 40 | 35 | 550 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000/58 GV 15 HWUVCP | 4 | 7 | 250 | 2000 | 40 | 35 | 550 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000/42 GV 30 HWCP   | 4 | 7 | 220 | 2000 | 40 | 35 | 550 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000/51 GV 30 HWCP   | 4 | 7 | 220 | 2000 | 40 | 35 | 550 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |

### WELLAMID PA 6 carbonfaserverstärkt / WELLAMID PA 6 carbon fibre reinforced \*

|                 |  |  |  |  |  |  |  |  |        |  |         |  |
|-----------------|--|--|--|--|--|--|--|--|--------|--|---------|--|
| 6000 CF 10 HWCP |  |  |  |  |  |  |  |  | < 50** |  | < 100** |  |
| 6000 CF 18 HWCP |  |  |  |  |  |  |  |  | < 10** |  | < 20**  |  |
| 6000 CF 30 HWCP |  |  |  |  |  |  |  |  | < 5**  |  | < 10**  |  |

### WELLAMID PA 6 mineralgefüllt & mineral-/glasfaser- bzw. carbonfaserverstärkt /

WELLAMID PA 6 mineral filled & mineral/ glass fibre or carbon fibre reinforced \*

|                         |   |   |     |      |    |    |     |  |                  |                  |                  |                  |
|-------------------------|---|---|-----|------|----|----|-----|--|------------------|------------------|------------------|------------------|
| 6000 MR 209 HWCP        | 4 | 6 | 200 | 2000 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 MR 309 HWCP        | 4 | 6 | 200 | 2000 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 MR 409 HWCP        | 4 | 6 | 200 | 2000 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 MR CF 15/15 HWCP   | 4 | 6 | 200 | 2000 | 35 | 35 | 450 |  | 10 <sup>5</sup>  |                  | 10 <sup>5</sup>  |                  |
| 6000 MR GV 20/10 HWCP   | 4 | 6 | 200 | 2000 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 MR GV 25/15 HWCP   | 4 | 6 | 200 | 2000 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 MR GV 25/15 HWUVCP | 4 | 6 | 200 | 2000 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |

### WELLAMID PA 6 glasfaser-/glaskugelverstärkt / WELLAMID PA 6 glass fibre- / glass sphere reinforced\*

|                       |   |   |     |      |    |    |     |  |                  |                  |                  |                  |
|-----------------------|---|---|-----|------|----|----|-----|--|------------------|------------------|------------------|------------------|
| 6000 GVS 8/25 HWCP    | 4 | 6 | 200 | 700  | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 GVS 10/20 HWCP   | 4 | 6 | 200 | 700  | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 GVS 10/20 HWUVCP | 4 | 6 | 200 | 700  | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 GVS 20/10 HWCP   | 4 | 7 | 200 | 1000 | 40 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 GVS 20/20 HWCP   | 4 | 7 | 200 | 1000 | 40 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |

### WELLAMID PA 6 glaskugel- glasfaserverstärkt modifiziert /

WELLAMID PA 6 impact modified glass fibre-/ glass sphere reinforced\*

|                        |   |   |     |     |    |    |     |  |                  |                  |                  |                  |
|------------------------|---|---|-----|-----|----|----|-----|--|------------------|------------------|------------------|------------------|
| 6000/42 GVS 8/25 HWCP  | 4 | 6 | 200 | 700 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000/42 GVS 10/15 HWCP | 4 | 7 | 200 | 700 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000/42 GVS 15/15 HWCP | 4 | 7 | 200 | 700 | 35 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |

### WELLAMID PA 6 Spezialprodukte / WELLAMID PA 6 specialties

|                |   |   |     |      |    |    |     |  |                  |                  |                  |                  |
|----------------|---|---|-----|------|----|----|-----|--|------------------|------------------|------------------|------------------|
| 6000 MX 400 CP | 4 | 6 | 200 | 1000 | 40 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |
| 6000 MZ 301 CP | 4 | 6 | 200 | 1800 | 40 | 35 | 450 |  | 10 <sup>15</sup> | 10 <sup>12</sup> | 10 <sup>12</sup> | 10 <sup>10</sup> |

10 \*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar / Share of reinforcing materials and fillers can be varied.

Obige Werte sind unverbindliche Richtwerte / The figures should be regarded as guide values only !



WELLAMID

## Sonstige Eigenschaften

Additional Properties

| Bem.                                    | Dichte<br><i>den-<br/>sity</i> | Brennbarkeit<br><i>flammability</i> |        |        |       |                                   |   | Feuchte-<br>aufnahme bis<br>Sätti-<br>gung<br><br><i>satura-<br/>tion<br/>value at</i> | Verarbeitungs-<br>schwindung<br>längs/quer<br><br><i>molding<br/>shrinkage<br/>parallel/ across</i> | Bemerkungen<br><br><i>additional remarks</i> |
|---|--------------------------------|-------------------------------------|--------|--------|-------|-----------------------------------|---|--|---|--|
|   |                                | 0,8 mm                              | 1,6 mm | 3,2 mm | 23/50 | Platte 60x60x2<br>mm <sup>3</sup> |   |  |   |  |
| Maßeinheit / Unit                       | g/cm <sup>3</sup>              | Stufe                               | Stufe  | Stufe  | %     | %                                 |   |  |   |  |
| Prüfvorschrift / Test method            | ISO<br>1183                    | UL-94                               |        |        |       |                                   |   | DIN<br>53495   | -   |  |
| spritztrocken / dry (freshly moulded)   | X                              | X                                   | X      | X      | X     | X                                 | X | X  | X   |  |
| luftfeucht / moist (after conditioning) |                                |                                     | X      |        | X     |                                   | X |  |   |  |

### WELLAMID PA 6 glasfaserverstärkte Qualitäten mit erhöhter Dauergebrauchstemperatur /

WELLAMID PA 6 glass fibre reinforced qualities with higher long term working temperature\*

|                 |      |  |  |    |    |    |    |         |         |  |
|-----------------|------|--|--|----|----|----|----|---------|---------|--|
| 6000 GV 30 WWCP | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,8 |  |
|-----------------|------|--|--|----|----|----|----|---------|---------|--|

### WELLAMID PA 6 glasfaserverstärkt modifiziert / WELLAMID PA 6 impact modified glass fibre reinforced \*

|                      |      |  |  |    |    |    |    |         |         |  |
|----------------------|------|--|--|----|----|----|----|---------|---------|--|
| 6000/42 GV 15 HWUVCP | 1,2  |  |  | HB | HB | HB | HB | 2-2,5   | 0,3/0,9 |  |
| 6000/52 GV 15 HWCP   | 1,21 |  |  | HB | HB | HB | HB | 2-2,5   | 0,3/0,8 |  |
| 6000/52 GV 15 HWUVCP | 1,21 |  |  | HB | HB | HB | HB | 2-2,5   | 0,3/0,8 |  |
| 6000/58 GV 15 HWUVCP | 1,16 |  |  | HB | HB | HB | HB | 2-2,5   | 0,3/0,8 |  |
| 6000/42 GV 30 HWCP   | 1,29 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,8 |  |
| 6000/51 GV 30 HWCP   | 1,31 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,8 |  |

### WELLAMID PA 6 carbonfaserverstärkt / WELLAMID PA 6 carbon fibre reinforced \*

|                 |      |  |  |    |    |    |    |         |         |   |
|-----------------|------|--|--|----|----|----|----|---------|---------|---|
| 6000 CF 10 HWCP | 1,18 |  |  | HB | HB | HB | HB | 2- 2,5  | 0,4/1,0 | elektr.leitfähig/impr.electr.conductivity |
| 6000 CF 18 HWCP | 1,2  |  |  | HB | HB | HB | HB | 2- 2,5  | 0,3/0,9 | elektr.leitfähig/impr.electr.conductivity |
| 6000 CF 30 HWCP | 1,25 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,8 | elektr.leitfähig/impr.electr.conductivity |

### WELLAMID PA 6 mineralgefüllt & mineral-/glasfaser- bzw. carbonfaserverstärkt /

WELLAMID PA 6 mineral filled & mineral/ glass fibre or carbon fibre reinforced \*

|                        |      |  |  |    |    |    |    |         |         |  |
|------------------------|------|--|--|----|----|----|----|---------|---------|--|
| 6000 MR 209 HWCP       | 1,27 |  |  | HB | HB | HB | HB | 2-2,5   | 0,8-1,2 |  |
| 6000 MR 309 HWCP       | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,8-1   |  |
| 6000 MR 409 HWCP       | 1,46 |  |  | HB | HB | HB | HB | 1,5-2   | 0,8-1   |  |
| 6000 MRCF 15/15 HWCP   | 1,25 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,5/0,7 |  |
| 6000 MRGV 20/10 HWCP   | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,6/0,8 |  |
| 6000 MRGV 25/15 HWCP   | 1,45 |  |  | HB | HB | HB | HB | 1,5-2   | 0,5/0,7 |  |
| 6000 MRGV 25/15 HWUVCP | 1,45 |  |  | HB | HB | HB | HB | 1,5-2   | 0,5/0,7 |  |

### WELLAMID PA 6 glasfaser-/glaskugelverstärkt / WELLAMID PA 6 glass fibre- / glass sphere reinforced\*

|                       |      |  |  |    |    |    |    |         |         |  |
|-----------------------|------|--|--|----|----|----|----|---------|---------|--|
| 6000 GVS 8/25 HWCP    | 1,37 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,5/0,7 |  |
| 6000 GVS 10/20 HWCP   | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,5/0,7 |  |
| 6000 GVS 10/20 HWUVCP | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,5/0,7 |  |
| 6000 GVS 20/10 HWCP   | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,5/0,7 |  |
| 6000 GVS 20/20 HWCP   | 1,45 |  |  | HB | HB | HB | HB | 1,5-2   | 0,5/0,7 |  |

### WELLAMID PA 6 glaskugel- glasfaserverstärkt modifiziert /

WELLAMID PA 6 impact modified glass fibre-/ glass sphere reinforced\*

|                        |      |  |  |    |    |    |    |         |         |  |
|------------------------|------|--|--|----|----|----|----|---------|---------|--|
| 6000/42 GVS 8/25 HWCP  | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,3/0,8 |  |
| 6000/42 GVS 10/15 HWCP | 1,28 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,5/0,7 |  |
| 6000/42 GVS 15/15 HWCP | 1,34 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,5/0,7 |  |

### WELLAMID PA 6 Spezialprodukte / WELLAMID PA 6 specialities

|                |      |  |  |    |    |    |    |         |         |                                    |
|----------------|------|--|--|----|----|----|----|---------|---------|------------------------------------|
| 6000 MX 400 CP | 1,47 |  |  | HB | HB | HB | HB | 1,8-2,5 | 0,5/0,7 | wärmestabilisiert/ heat stabilised |
| 6000 MZ 301 CP | 1,39 |  |  | HB | HB | HB | HB | 1,8-2,5 | 0,5/0,7 | wärmestabilisiert/ heat stabilised |



WELLAMID

## Mechanische Eigenschaften

### Mechanical Properties

| Bem.  | 50 mm/min      |    |                      |    |                        |     | 5 mm/min               |     |                         |     |                        |       |
|---|----------------|----|----------------------|----|------------------------|-----|------------------------|-----|-------------------------|-----|------------------------|-------|
|   | MPa            |    | %                    |    | %                      |     | %                      |     | MPa                     |     | MPa                    |       |
| <b>Streckspannung</b>   |                |    | <b>Streckdehnung</b> |    | <b>Bruchdehnung</b>    |     | <b>Bruchdehnung</b>    |     | <b>Bruchspannung</b>    |     | <b>Zug E-Modul</b>     |       |
| <i>yield stress</i>   |                |    | <i>yield strain</i>  |    | <i>strain at break</i> |     | <i>strain at break</i> |     | <i>tensile strength</i> |     | <i>tensile modulus</i> |       |
| <b>Prüfvorschrift / Test method</b>   | <b>ISO 527</b> |    |                      |    |                        |     |                        |     |                         |     |                        |       |
| <i>spritztrocken / dry (freshly moulded)</i>  | X              |    | X                    |    | X                      |     | X                      |     | X                       |     | X                      |       |
| <i>luftfeucht / moist (after conditioning)</i>  |                | X  |                      | X  |                        | X   |                        | X   |                         | X   |                        | X     |
| <b>WELLAMID PA 66 unverstärkt / WELLAMID PA 66 unreinforced</b>   |                |    |                      |    |                        |     |                        |     |                         |     |                        |       |
| 6600 HWCP   | 85             | 60 | 5                    | 20 | 20                     | >50 |                        |     |                         |     | 3200                   | 1300  |
| 6600 HWUVCP   | 85             | 60 | 5                    | 20 | 20                     | >50 |                        |     |                         |     | 3200                   | 1300  |
| 6600 HYCP   | 85             | 60 | 5                    | 20 | 20                     | >50 |                        |     |                         |     | 3200                   | 1300  |
| 6600 WWCP   | 85             | 60 | 5                    | 20 | 20                     | >50 |                        |     |                         |     | 3200                   | 1300  |
| 6600 TLWCP  | 85             | 60 | 5                    | 20 | 20                     | >50 |                        |     |                         |     | 3200                   | 1300  |
| <b>WELLAMID PA 66 unverstärkt flammgeschützt UL-approbiert / WELLAMID PA 66 unreinforced; with flame retardant; UL-recognised</b>   |                |    |                      |    |                        |     |                        |     |                         |     |                        |       |
| 6600 PA-66-HWL  | 85             | 60 | 4                    | 20 | 15                     | >50 |                        |     |                         |     | 3200                   | 1300  |
| 6600 PA-66-HWV0CP   | 80             | 45 | 4,5                  | 50 | 20                     | 35  |                        |     |                         |     | 3400                   | 1400  |
| <b>WELLAMID PA 66 unverstärkt modifiziert / WELLAMID PA 66 unreinforced, impact modified</b>  |                |    |                      |    |                        |     |                        |     |                         |     |                        |       |
| 6600/42 HWCP  | 70             | 45 | 6                    | 25 | 25                     | >50 |                        |     |                         |     | 2500                   | 1100  |
| 6600/506 HWCP   | 75             | 50 | 5                    | 20 | 20                     | >50 |                        |     |                         |     | 2700                   | 1200  |
| 6600/508 HWUVCP   | 75             | 50 | 5                    | 20 | 20                     | >50 |                        |     |                         |     | 2700                   | 1200  |
| 6600/58 HWCP  | 55             | 45 | 5                    | 32 | >50                    | >50 |                        |     |                         |     | 2300                   | 1000  |
| 6600/64 HWCP  | 55             | 45 | 6                    | 35 | >50                    | >50 |                        |     |                         |     | 2000                   | 900   |
| <b>WELLAMID PA 66 glaskugelgefüllt / WELLAMID PA 66 glass sphere filled *</b>   |                |    |                      |    |                        |     |                        |     |                         |     |                        |       |
| 6600 GS 15 HWCP   |                |    |                      |    |                        |     | 6                      | 20  | 75                      | 45  | 3600                   | 1700  |
| 6600 GS 20 HWCP   |                |    |                      |    |                        |     | 5                      | 18  | 80                      | 50  | 3800                   | 1800  |
| 6600 GS 30 HWCP   |                |    |                      |    |                        |     | 5                      | 18  | 83                      | 58  | 4600                   | 2200  |
| 6600 GS 40 HWCP   |                |    |                      |    |                        |     | 5                      | 15  | 85                      | 60  | 5200                   | 2600  |
| 6600 GS 50 HWCP   |                |    |                      |    |                        |     | 4,5                    | 16  | 88                      | 63  | 5800                   | 3200  |
| <b>WELLAMID PA 66 glaskugelgefüllt modifiziert / WELLAMID PA 66 impact modified, glass sphere filled*</b>   |                |    |                      |    |                        |     |                        |     |                         |     |                        |       |
| 6600/505 GS 30 HWCP   |                |    |                      |    |                        |     | 5                      | 18  | 65                      | 45  | 4000                   | 1900  |
| <b>WELLAMID PA 66 glasfaserverstärkt / WELLAMID PA 66 glass fibre reinforced *</b>  |                |    |                      |    |                        |     |                        |     |                         |     |                        |       |
| 6600 GV 10 HWCP   |                |    |                      |    |                        |     | 3                      | 7   | 110                     | 70  | 5100                   | 3500  |
| 6600 GV 15 HWCP   |                |    |                      |    |                        |     | 3                      | 7   | 125                     | 80  | 6100                   | 4300  |
| 6600 GV 20 HWCP   |                |    |                      |    |                        |     | 3                      | 6   | 140                     | 105 | 7200                   | 4600  |
| 6600 GV 25 HWCP   |                |    |                      |    |                        |     | 3,5                    | 6   | 160                     | 120 | 8200                   | 6300  |
| 6600 GV 30 HWCP   |                |    |                      |    |                        |     | 3,5                    | 6   | 180                     | 125 | 9500                   | 7000  |
| 6600 GV 30 HWUVCP   |                |    |                      |    |                        |     | 3,5                    | 6   | 180                     | 125 | 9500                   | 7000  |
| 6600 GV 35 HWCP   |                |    |                      |    |                        |     | 3                      | 5   | 205                     | 150 | 11000                  | 8500  |
| 6600 GV 40 HWCP   |                |    |                      |    |                        |     | 2,5                    | 4,5 | 210                     | 155 | 12500                  | 9500  |
| 6600 GV 50 HWCP   |                |    |                      |    |                        |     | 2                      | 3,5 | 220                     | 165 | 15200                  | 11000 |
| <b>WELLAMID PA 66 glasfaserverstärkte Qualitäten mit erhöhter Dauergebrauchstemperatur / WELLAMID PA 66 glass fibre reinforced qualities with higher long term working temperature*</b> |                |    |                      |    |                        |     |                        |     |                         |     |                        |       |
| 6600 GV 25 DHCP   |                |    |                      |    |                        |     | 3,5                    | 6   | 160                     | 120 | 8200                   | 6300  |
| 6600 GV 30 WWCP   |                |    |                      |    |                        |     | 3,5                    | 6   | 180                     | 125 | 9500                   | 7000  |



WELLAMID

|   | Mechanische Eigenschaften<br>Mechanical Properties |   |         |   |    |  |  |        | Thermische Eigenschaften<br>Thermal Properties |  |           |      |  |
|---|--|---|---------|---|----|--|--|--------|--|--|-----------|------|--|
|   | Biege E-Modul<br><i>flexural modulus</i>           | Schlagzähigkeit [Charpy]<br><i>impact strength (Charpy)</i> |         | Kerbschlagzähigkeit [Charpy]<br><i>notched impact strength (Charpy)</i> |    | Schmelzpunkt<br><i>melting temperature</i> | Wärmeformbeständigkeit<br><i>heat deflection temperature</i> |        | Vicat B/50<br><i>Vicat B/50</i>                | Therm. Längenausdehnung - längs<br><i>coeff. of linear thermal expansion</i> |           |      |  |
| Bem.  |  | +23°C   | - 40 °C | +23°C   |    | Kofler                                     | HDT A  | HDT B  | 50 N   | 23 - 80°C  |           |      |  |
| Maßeinheit / Unit   | MPa  | kJ/m <sup>2</sup>   |         | kJ/m <sup>2</sup>   |    | ° C  | ° C  | ° C    | ° C  | 10 <sup>-4</sup> / K   |           |      |  |
| Prüfvorschrift / Test method  | ISO 178  |   | ISO 179 |   |    |  | -  | ISO 75 |  | ISO 306  | DIN 53752 |      |  |
| spritztrocken / dry (freshly moulded)   | X  |   | X       | X   | X  | X  | X  | X      | X  | X  |           |      |  |
| luftfeucht / moist (after conditioning)   |  | X   | X       | X   | X  | X  | X  | X      | X  | X  |           |      |  |
| <b>WELLAMID PA 66 unverstärkt / WELLAMID PA 66 unreinforced</b>   |  |   |         |   |    |  |  |        |  |  |           |      |  |
| 6600 HWCP   | 2800   |   | NB      | NB  |    | 6  | 17   | 262    | 75   | 200  | 230       | 0,85 |  |
| 6600 HWUVCP   | 2800   |   | NB      | NB  |    | 6  | 17   | 262    | 75   | 200  | 230       | 0,85 |  |
| 6600 HYCP   | 2800   |   | NB      | NB  |    | 6  | 17   | 262    | 75   | 200  | 230       | 0,85 |  |
| 6600 WWCP   | 2800   |   | NB      | NB  |    | 6  | 17   | 262    | 75   | 200  | 230       | 0,85 |  |
| 6600 TLWCP  | 2800   |   | NB      | NB  |    | 6  | 17   | 262    | 75   | 200  | 230       | 0,85 |  |
| <b>WELLAMID PA 66 unverstärkt flammgeschützt UL-approbiert / WELLAMID PA 66 unreinforced; with flame retardant; UL-recognised</b>   |  |   |         |   |    |  |  |        |  |  |           |      |  |
| 6600 PA-66-HWL  | 2800   |   | NB      | NB  |    | 6  | 17   | 262    | 75   | 200  | 230       | 0,85 |  |
| 6600 PA-66-HWV0CP   | 3000   |   | NB      | NB  |    | 7  | 25   | 262    | 75   | 215  | 230       | 0,85 |  |
| <b>WELLAMID PA 66 unverstärkt modifiziert / WELLAMID PA 66 unreinforced, impact modified</b>  |  |   |         |   |    |  |  |        |  |  |           |      |  |
| 6600/42 HWCP  | 2100   |   | NB      | NB  |    | 10   | 25   | 262    | 65   | 150  | 200       | 0,9  |  |
| 6600/506 HWCP   | 2200   |   | NB      | NB  |    | 11   | 28   | 262    | 65   | 150  | 200       | 0,9  |  |
| 6600/508 HWUVCP   | 2200   |   | NB      | NB  |    | 13   | 35   | 262    | 65   | 150  | 200       | 0,9  |  |
| 6600/58 HWCP  | 1900   |   | NB      | NB  | NB | 25   | 60   | 262    | 65   | 150  | 200       | 0,9  |  |
| 6600/64 HWCP  | 1800   |   | NB      | NB  | NB | 70   | NB   | 262    | 65   | 150  | 200       | 0,9  |  |
| <b>WELLAMID PA 66 glaskugelgefüllt / WELLAMID PA 66 glass sphere filled *</b>   |  |   |         |   |    |  |  |        |  |  |           |      |  |
| 6600 GS 15 HWCP   | 3000   |   | 20      | 42  |    | 4  | 12   | 262    | 100  | 200  | 230       | 0,7  |  |
| 6600 GS 20 HWCP   | 3200   |   | 20      | 45  |    | 5  | 14   | 262    | 110  | 200  | 230       | 0,65 |  |
| 6600 GS 30 HWCP   | 4000   |   | 25      | 55  |    | 6  | 16   | 262    | 120  | 205  | 230       | 0,5  |  |
| 6600 GS 40 HWCP   | 4600   |   | 30      | 60  |    | 7  | 18   | 262    | 130  | 205  | 230       | 0,4  |  |
| 6600 GS 50 HWCP   | 5200   |   | 35      | 70  |    | 7,5  | 19   | 262    | 130  | 205  | 230       | 0,35 |  |
| <b>WELLAMID PA 66 glaskugelgefüllt modifiziert / WELLAMID PA 66 impact modified, glass sphere filled*</b>   |  |   |         |   |    |  |  |        |  |  |           |      |  |
| 6600/505 GS 30 HWCP   | 3400   |   | 35      | 70  |    | 7  | 18   | 262    | 100  | 190  | 230       | 0,35 |  |
| <b>WELLAMID PA 66 glasfaserverstärkt / WELLAMID PA 66 glass fibre reinforced *</b>  |  |   |         |   |    |  |  |        |  |  |           |      |  |
| 6600 GV 10 HWCP   | 4000   |   | 35      | 60  |    | 5  | 10   | 262    | 250  | 250  | 250       | 0,4  |  |
| 6600 GV 15 HWCP   | 5000   |   | 40      | 70  |    | 7  | 11   | 262    | 250  | 250  | 250       | 0,35 |  |
| 6600 GV 20 HWCP   | 6100   |   | 55      | 85  |    | 8  | 15   | 262    | 250  | 250  | 250       | 0,35 |  |
| 6600 GV 25 HWCP   | 7400   |   | 60      | 90  |    | 10   | 18   | 262    | 250  | 250  | 250       | 0,3  |  |
| 6600 GV 30 HWCP   | 8400   |   | 90      | 100   |    | 12   | 22   | 262    | 250  | 250  | 250       | 0,2  |  |
| 6600 GV 30 HWUVCP   | 8400   |   | 90      | 100   |    | 12   | 22   | 262    | 250  | 250  | 250       | 0,2  |  |
| 6600 GV 35 HWCP   | 9500   |   | 95      | 105   |    | 15   | 30   | 262    | 250  | 250  | 250       | 0,2  |  |
| 6600 GV 40 HWCP   | 10500  |   | 95      | 105   |    | 17   | 35   | 262    | 250  | 250  | 250       | 0,15 |  |
| 6600 GV 50 HWCP   | 13500  |   | 95      | 105   |    | 18   | 37   | 262    | 250  | 250  | 250       | 0,15 |  |
| <b>WELLAMID PA 66 glasfaserverstärkte Qualitäten mit erhöhter Dauergebrauchstemperatur / WELLAMID PA 66 glass fibre reinforced qualities with higher long term working temperature*</b> |  |   |         |   |    |  |  |        |  |  |           |      |  |
| 6600 GV 25 DHCP   | 7400   |   | 65      | 90  |    | 10   | 18   | 262    | 250  | 250  | 250       | 0,3  |  |
| 6600 GV 30 WWCP   | 8400   |   | 90      | 100   |    | 12   | 22   | 262    | 250  | 250  | 250       | 0,2  |  |

\*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar/\*Share of reinforcing materials and fillers can be varied.  
Obige Werte sind unverbindliche Richtwerte! / The figures should be regarded as guide values only!



WELLAMID

## Elektrische Eigenschaften

### Electrical Properties

| Bem.<br>Maßeinheit / Unit   | 1 MHz            |   |     |      | Elekt. Durchschlagsfestigkeit |    | Vergl. Kriechwegbildung |     | Spez. Durchgangswiderstand |                  | Spez. Oberflächenwiderstand |                  |
|---|------------------|---|-----|------|-------------------------------|----|-------------------------|-----|----------------------------|------------------|-----------------------------|------------------|
|   | 10 <sup>-4</sup> |   |     |      | kV/mm                         |    | Stufe                   |     | Ohm cm                     |                  | Ohm                         |                  |
| Prüfvorschrift / Test method  | IEC 250          |   |     |      | IEC 243-1                     |    | IEC 112                 |     | IEC 93                     |                  | **ISO 3915                  |                  |
| spritztrocken / dry (freshly moulded)   | X                |   | X   |      | X                             |    | X                       |     | X                          |                  | X                           |                  |
| luftfeucht / moist (after conditioning)   |                  | X |     | X    |                               | X  |                         | X   |                            | X                |                             | X                |
| <b>WELLAMID PA 66 unverstärkt / WELLAMID PA 66 unreinforced</b>   |                  |   |     |      |                               |    |                         |     |                            |                  |                             |                  |
| 6600 HWCP   | 3,4              | 5 | 250 | 2000 | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600 HWUVCP   | 3,4              | 5 | 250 | 2000 | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600 HYCP   | 3,4              | 5 | 250 | 2000 | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600 WWCP   | 3,4              | 5 | 250 | 2000 | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600 TLWCP  | 3,4              | 5 | 250 | 2000 | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 unverstärkt flammgeschützt UL-approbiert / WELLAMID PA 66 unreinforced; with flame retardant; UL-recognised</b>   |                  |   |     |      |                               |    |                         |     |                            |                  |                             |                  |
| 6600 PA-66-HWL  | 3,4              | 5 | 250 | 2000 | 30                            | 30 | 600                     | 600 | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600 PA-66-HWV0CP   | 3,4              | 5 | 200 | 3000 | 30                            | 30 | 600                     | 600 | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 unverstärkt modifiziert / WELLAMID PA 66 unreinforced, impact modified</b>  |                  |   |     |      |                               |    |                         |     |                            |                  |                             |                  |
| 6600/42 HWCP  | 3,4              | 5 | 150 | 700  | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600/506 HWCP   | 3,4              | 5 | 150 | 700  | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600/508 HWUVCP   | 3,4              | 5 | 150 | 700  | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600/58 HWCP  | 3,4              | 5 | 150 | 700  | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| 6600/64 HWCP  | 3,4              | 5 | 150 | 700  | 30                            | 30 | 600                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>13</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 glaskugelgefüllt / WELLAMID PA 66 glass sphere filled *</b>   |                  |   |     |      |                               |    |                         |     |                            |                  |                             |                  |
| 6600 GS 15 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GS 20 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GS 30 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GS 40 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GS 50 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 glaskugelgefüllt modifiziert / WELLAMID PA 66 impact modified, glass sphere filled *</b>  |                  |   |     |      |                               |    |                         |     |                            |                  |                             |                  |
| 6600/505 GS 30 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 glasfaserverstärkt / WELLAMID PA 66 glass fibre reinforced *</b>  |                  |   |     |      |                               |    |                         |     |                            |                  |                             |                  |
| 6600 GV 10 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 15 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 20 HWCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 25 HWCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 30 HWCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 30 HWUVCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 35 HWCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 40 HWCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 50 HWCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 glasfaserverstärkte Qualitäten mit erhöhter Dauergebrauchstemperatur / WELLAMID PA 66 glass fibre reinforced qualities with higher long term service temperature*</b> |                  |   |     |      |                               |    |                         |     |                            |                  |                             |                  |
| 6600 GV 25 DHCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GV 30 WWCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |     | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |





WELLAMID

**Sonstige Eigenschaften**

*Additional Properties*

| Bem. | Dichte<br><i>den-<br/>sity</i> | Brennbarkeit<br><i>flammability</i> |        |        | Feuchte-<br>aufnahme bis<br>Sätti-<br>gung<br><br><i>satura-<br/>tion<br/>value at</i> | Verarbeitungs-<br>schwindung<br>längs/quer<br><br><i>molding<br/>shrinkage<br/>parallel/<br/>across</i> | Bemerkungen<br><br><i>additional remarks</i> |
|------|--------------------------------|-------------------------------------|--------|--------|--|---|--|
|      |                                | 0,8 mm                              | 1,6 mm | 3,2 mm |  |   |  |

| Maßeinheit / Unit                       | g/cm <sup>3</sup> | Stufe | Stufe | Stufe | %         | % |
|---|-------------------|-------|-------|-------|-----------|---|
| Prüfvorschrift / Test method            | ISO 1183          | UL-94 |       |       | DIN 53495 | - |
| spritztrocken / dry (freshly moulded)   | X                 | X     | X     | X     | X         | X |
| luftfeucht / moist (after conditioning) |                   | X     | X     | X     |           |   |

**WELLAMID PA 66 unverstärkt / WELLAMID PA 66 unreinforced**

|             |      |  |     |     |     |     |       |         |  |
|-------------|------|--|-----|-----|-----|-----|-------|---------|--|
| 6600 HWCP   | 1,13 |  | V-2 | V-2 | V-2 | V-2 | 2,5-3 | 0,8-1,2 |  |
| 6600 HWUVCP | 1,13 |  | V-2 | V-2 | V-2 | V-2 | 2,5-3 | 0,8-1,2 |  |
| 6600 HYCP   | 1,14 |  | V-2 | V-2 | V-2 | V-2 | 2,5-3 | 0,8-1,2 | erhöht/ higher Hydrolys.stab.            |
| 6600 WWCP   | 1,13 |  | V-2 | V-2 | V-2 | V-2 | 2,5-3 | 0,8-1,2 | höhere Dauergebr.temp./higher serv.temp. |
| 6600 TLWCP  | 1,13 |  | V-2 | V-2 | V-2 | V-2 | 2,5-3 | 0,8-1,2 |  |

**WELLAMID PA 66 unverstärkt flammgeschützt UL-approbiert /**

*WELLAMID PA 66 unreinforced; with flame retardant; UL-recognised*

|                   |      |     |     |     |     |     |     |       |         |                                       |
|-------------------|------|-----|-----|-----|-----|-----|-----|-------|---------|---------------------------------------|
| 6600 PA-66-HWL    | 1,14 | V-2 | V-2 | V-2 | V-2 | V-2 | V-2 | 2,5-3 | 0,8-1,2 | UL- approbiert/ UL- approved All.Col. |
| 6600 PA-66-HWV0CP | 1,15 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | 2-2,5 | 0,8-1,2 | UL- approbiert/ UL- approved All.Col. |

**WELLAMID PA 66 unverstärkt modifiziert / WELLAMID PA 66 unreinforced, impact modified**

|                 |      |  |    |    |    |    |       |         |  |
|-----------------|------|--|----|----|----|----|-------|---------|--|
| 6600/42 HWCP    | 1,11 |  | HB | HB | HB | HB | 2,5-3 | 0,8-1,2 |  |
| 6600/506 HWCP   | 1,13 |  | HB | HB | HB | HB | 2,5-3 | 0,8-1,2 |  |
| 6600/508 HWUVCP | 1,13 |  | HB | HB | HB | HB | 2,5-3 | 0,8-1,2 |  |
| 6600/58 HWCP    | 1,07 |  | HB | HB | HB | HB | 2,5-3 | 0,8-1,2 |  |
| 6600/64 HWCP    | 1,09 |  | HB | HB | HB | HB | 2,5-3 | 0,8-1,2 |  |

**WELLAMID PA 66 glaskugelgefüllt / WELLAMID PA 66 glass sphere filled \***

|                 |      |  |    |    |    |    |         |         |  |
|-----------------|------|--|----|----|----|----|---------|---------|--|
| 6600 GS 15 HWCP | 1,23 |  | HB | HB | HB | HB | 2,2-2,7 | 0,9-1,1 |  |
| 6600 GS 20 HWCP | 1,28 |  | HB | HB | HB | HB | 2,2-2,7 | 0,9-1,1 |  |
| 6600 GS 30 HWCP | 1,35 |  | HB | HB | HB | HB | 1,8-2,3 | 0,9-1,1 |  |
| 6600 GS 40 HWCP | 1,46 |  | HB | HB | HB | HB | 1,8-2,3 | 0,9-1,1 |  |
| 6600 GS 50 HWCP | 1,57 |  | HB | HB | HB | HB | 1,5-2   | 0,8-1,0 |  |

**WELLAMID PA 66 glaskugelgefüllt modifiziert / WELLAMID PA 66 impact modified, glass sphere filled \***

|                     |     |  |    |    |    |    |         |         |  |
|---------------------|-----|--|----|----|----|----|---------|---------|--|
| 6600/505 GS 30 HWCP | 1,3 |  | HB | HB | HB | HB | 1,8-2,3 | 0,9-1,1 |  |
|---------------------|-----|--|----|----|----|----|---------|---------|--|

**WELLAMID PA 66 glasfaserverstärkt / WELLAMID PA 66 glass fibre reinforced \***

|                   |      |  |    |    |    |    |         |          |                                       |
|-------------------|------|--|----|----|----|----|---------|----------|---------------------------------------|
| 6600 GV 10 HWCP   | 1,2  |  | HB | HB | HB | HB | 2,2-2,7 | 0,4/0,9  | UL- approbiert/ UL- approved All.Col. |
| 6600 GV 15 HWCP   | 1,23 |  | HB | HB | HB | HB | 2,2-2,7 | 0,3/0,8  | UL- approbiert/ UL- approved All.Col. |
| 6600 GV 20 HWCP   | 1,27 |  | HB | HB | HB | HB | 2-2,5   | 0,2/0,7  | UL- approbiert/ UL- approved All.Col. |
| 6600 GV 25 HWCP   | 1,32 |  | HB | HB | HB | HB | 2-2,5   | 0,2/0,7  | UL- approbiert/ UL- approved All.Col. |
| 6600 GV 30 HWCP   | 1,36 |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7  | UL- approbiert/ UL- approved All.Col. |
| 6600 GV 30 HWUVCP | 1,36 |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7  |                                       |
| 6600 GV 35 HWCP   | 1,41 |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7  | UL- approbiert/ UL- approved All.Col. |
| 6600 GV 40 HWCP   | 1,48 |  | HB | HB | HB | HB | 1,4-2   | 0,15/0,8 | UL- approbiert/ UL- approved All.Col. |
| 6600 GV 50 HWCP   | 1,57 |  | HB | HB | HB | HB | 1,4-2   | 0,15/0,8 | UL- approbiert/ UL- approved All.Col. |

**WELLAMID PA 66 glasfaserverstärkte Qualitäten mit erhöhter Dauergebrauchstemperatur /**

*WELLAMID PA 66 glass fibre reinforced qualities with higher long term working temperature\**

|                 |      |  |    |    |    |    |         |         |   |
|-----------------|------|--|----|----|----|----|---------|---------|---|
| 6600 GV 25 DHCP | 1,32 |  | HB | HB | HB | HB | 2-2,5   | 0,2/0,7 |   |
| 6600 GV 30 WWCP | 1,36 |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7 | erhöhte Dauergebr.temp./higher serv.temp. |

\*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar/\*Share of reinforcing materials and fillers can be varied.  
Obige Werte sind unverbindliche Richtwerte! / The figures should be regarded as guide values only!



**WELLAMID**

## Mechanische Eigenschaften

### Mechanical Properties

|   | Streckspannung |   | Streckdehnung |   | Bruchdehnung    |   | Bruchdehnung    |     | Bruchspannung    |     | Zug E-Modul     |       |
|---|----------------|---|---------------|---|-----------------|---|-----------------|-----|------------------|-----|-----------------|-------|
|   | yield stress   |   | yield strain  |   | strain at break |   | strain at break |     | tensile strength |     | tensile modulus |       |
| Bem.  | 50 mm/min      |   |               |   |                 |   | 5 mm/min        |     |                  |     |                 |       |
| Maßeinheit / Unit   | MPa            |   | %             |   | %               |   | %               |     | MPa              |     | MPa             |       |
| Prüfvorschrift / Test method  | ISO 527        |   |               |   |                 |   |                 |     |                  |     |                 |       |
| spritztrocken / dry (freshly moulded)   | X              |   | X             |   | X               |   | X               |     | X                |     | X               |       |
| luftfeucht / moist (after conditioning)   |                | X |               | X |                 | X |                 | X   |                  | X   |                 | X     |
| <b>WELLAMID PA 66 glasfaserverstärkte Qualitäten mit erhöhter Hydrolysestabilität / WELLAMID PA 66 glass fibre reinforced qualities with higher stability against hydrolysis*</b> |                |   |               |   |                 |   |                 |     |                  |     |                 |       |
| 6600 GV 30 HYCP   |                |   |               |   |                 |   | 3,5             | 6   | 180              | 125 | 9500            | 7000  |
| <b>WELLAMID PA 66/6 glasfaserverstärkt flammgeschützt UL approbiert / WELLAMID PA 66/6 glass fibre reinforced flame retardant UL recognised*</b>                                  |                |   |               |   |                 |   |                 |     |                  |     |                 |       |
| 6600-PA66-GV 20 HWV0CP  |                |   |               |   |                 |   | 3               | 6   | 110              | 70  | 8100            | 6000  |
| 6600-PA66-GV 25 HWV0CP  |                |   |               |   |                 |   | 3               | 6   | 130              | 95  | 9200            | 7200  |
| 6600-PA66-GV 30 HWV0CP  |                |   |               |   |                 |   | 3               | 6   | 140              | 105 | 9600            | 7100  |
| <b>WELLAMID PA 66 glasfaserverstärkt modifiziert / WELLAMID PA 66 impact modified, glass fibre reinforced*</b>  |                |   |               |   |                 |   |                 |     |                  |     |                 |       |
| 6600/42 GV 15 HWCP  |                |   |               |   |                 |   | 3,5             | 7   | 100              | 70  | 5300            | 3000  |
| 6600/42 GV 30 HWCP  |                |   |               |   |                 |   | 3,5             | 7   | 130              | 90  | 8000            | 5500  |
| 6600/50 GV 15 HWCP  |                |   |               |   |                 |   | 3,5             | 8   | 100              | 70  | 5300            | 3500  |
| 6600/50 GV 30 HWCP  |                |   |               |   |                 |   | 3,5             | 8   | 130              | 90  | 8000            | 6000  |
| 6600/58 GV 15 HWCP  |                |   |               |   |                 |   | 3,6             | 8   | 90               | 60  | 5000            | 3300  |
| 6600/58 GV 30 HWCP  |                |   |               |   |                 |   | 3,6             | 6   | 135              | 90  | 7500            | 5000  |
| 6600/58 GV 30 HWUVCP  |                |   |               |   |                 |   | 3,6             | 6   | 135              | 90  | 7500            | 5000  |
| <b>WELLAMID PA 66 carbonfaserverstärkt &amp; carbon-/glasfaserverstärkt / WELLAMID PA 66 carbon fibre &amp; carbon-/glass fibre reinforced *</b>                                  |                |   |               |   |                 |   |                 |     |                  |     |                 |       |
| 6600 CF 10 HWCP   |                |   |               |   |                 |   | 2               | 4,5 | 160              | 110 | 12500           | 9000  |
| 6600 CF 20 HWCP   |                |   |               |   |                 |   | 2               | 4   | 175              | 125 | 16000           | 12500 |
| 6600 CF 30 HWCP   |                |   |               |   |                 |   | 1,6             | 3,5 | 205              | 145 | 21000           | 16000 |
| 6600 CFGV 20/10 HWCP  |                |   |               |   |                 |   | 2               | 4   | 200              | 135 | 16500           | 13000 |
| <b>WELLAMID PA 66 mineralgefüllt &amp; mineral-/glasfaserverstärkt / WELLAMID PA 66 mineral filled &amp; mineral/ glass fibre reinforced *</b>                                    |                |   |               |   |                 |   |                 |     |                  |     |                 |       |
| 6600 MR 209 HWCP  |                |   |               |   |                 |   | 8               | 18  | 85               | 55  | 4300            | 1900  |
| 6600 MR 309 HWCP  |                |   |               |   |                 |   | 5               | 15  | 80               | 55  | 5200            | 2700  |
| 6600 MR 409 HWCP  |                |   |               |   |                 |   | 4               | 15  | 90               | 60  | 6000            | 3500  |
| 6600 MRGV 20/10 HWCP  |                |   |               |   |                 |   | 3               | 6   | 110              | 65  | 7000            | 4300  |
| 6600 MRGV 20/20 HWCP  |                |   |               |   |                 |   | 3               | 6   | 130              | 90  | 8500            | 6000  |
| 6600 MRGV 25/15 HWCP  |                |   |               |   |                 |   | 3               | 6   | 125              | 85  | 8200            | 5500  |
| 6600 MRGV 30/10 HWCP  |                |   |               |   |                 |   | 3               | 10  | 120              | 75  | 8000            | 5500  |
| <b>WELLAMID PA 66 glasfaser-/glaskugelverstärkt / WELLAMID PA 66 glass fibre/ glass sphere reinforced*</b>  |                |   |               |   |                 |   |                 |     |                  |     |                 |       |
| 6600 GVS 15/10 HWCP   |                |   |               |   |                 |   | 3               | 6   | 120              | 65  | 6200            | 4100  |
| 6600 GVS 20/10 HWCP   |                |   |               |   |                 |   | 3,5             | 8   | 150              | 95  | 8000            | 5500  |
| <b>WELLAMID PA 66 Spezialprodukte / WELLAMID PA 66 specialities</b>   |                |   |               |   |                 |   |                 |     |                  |     |                 |       |
| 6600 MZ 315 CP  |                |   |               |   |                 |   | 2               | 5   | 130              | 95  | 9500            | 6000  |
| 6600 MZ 401 CP  |                |   |               |   |                 |   | 2               | 5   | 120              | 85  | 12500           | 9000  |



WELLAMID

|  |   | Mechanische Eigenschaften<br><i>Mechanical Properties</i>               |  |  |  | Thermische Eigenschaften<br><i>Thermal Properties</i> |                                 |  |  |  |
|--|---|---|--|--|--|---|---------------------------------|--|--|--|
| Biege E-Modul<br><i>flexural modulus</i> | Schlagzähigkeit [Charpy]<br><i>impact strength (Charpy)</i> | Kerbschlagzähigkeit [Charpy]<br><i>notched impact strength (Charpy)</i> |  | Schmelzpunkt<br><i>melting temperature</i> | Wärmeformbeständigkeit<br><i>heat deflection temperature</i> |   | Vicat B/50<br><i>Vicat B/50</i> | Therm. Längenausdehnungslängs<br><i>coeff. of linear thermal expansion</i> |  |  |

| Bem.                                    |         | +23°C             | - 40 °C | +23°C             | Kofler | HDT A | HDT B  | 50 N | 23 - 80°C            |           |
|---|---------|-------------------|---------|-------------------|--------|-------|--------|------|----------------------|-----------|
| Maßeinheit / Unit                       | MPa     | kJ/m <sup>2</sup> |         | kJ/m <sup>2</sup> | ° C    | ° C   | ° C    | ° C  | 10 <sup>-4</sup> / K |           |
| Prüfvorschrift / Test method            | ISO 178 | ISO 179           |         |                   |        | -     | ISO 75 |      | ISO 306              | DIN 53752 |
| spritztrocken / dry (freshly moulded)   | X       | X                 | X       | X                 | X      | X     | X      | X    | X                    |           |
| luftfeucht / moist (after conditioning) | X       | X                 | X       | X                 | X      | X     | X      | X    | X                    |           |

**WELLAMID PA 66 glasfaserverstärkte Qualitäten mit erhöhter Hydrolysestabilität /**

*WELLAMID PA 66 glass fibre reinforced qualities with higher stability against hydrolysis\**

|                 |      |    |     |    |    |     |     |     |     |     |
|-----------------|------|----|-----|----|----|-----|-----|-----|-----|-----|
| 6600 GV 30 HYCP | 8400 | 90 | 100 | 12 | 22 | 262 | 250 | 250 | 250 | 0,2 |
|-----------------|------|----|-----|----|----|-----|-----|-----|-----|-----|

**WELLAMID PA 66/6 glasfaserverstärkt flammgeschützt UL approbiert /**

*WELLAMID PA 66/6 glass fibre reinforced flame retardant UL recognised\**

|                        |      |    |     |    |    |     |     |     |     |      |
|------------------------|------|----|-----|----|----|-----|-----|-----|-----|------|
| 6600-PA66-GV 20 HWV0CP | 7300 | 60 | 90  | 9  | 16 | 240 | 225 | 235 | 230 | 0,25 |
| 6600-PA66-GV 25 HWV0CP | 8100 | 75 | 100 | 10 | 18 | 240 | 225 | 235 | 230 | 0,25 |
| 6600-PA66-GV 30 HWV0CP | 8600 | 65 | 90  | 10 | 18 | 240 | 225 | 235 | 230 | 0,2  |

**WELLAMID PA 66 glasfaserverstärkt modifiziert / WELLAMID PA 66 impact modified, glass fibre reinforced \***

|                      |      |    |     |    |    |     |     |     |     |      |     |
|----------------------|------|----|-----|----|----|-----|-----|-----|-----|------|-----|
| 6600/42 GV 15 HWCP   | 4800 | 50 | 80  | 12 | 22 | 262 | 220 | 230 | 230 | 0,35 |     |
| 6600/42 GV 30 HWCP   | 6800 | 60 | 90  | 18 | 30 | 262 | 230 | 230 | 230 | 0,2  |     |
| 6600/50 GV 15 HWCP   | 5000 | 60 | 95  | 14 | 25 | 262 | 220 | 230 | 230 | 0,35 |     |
| 6600/50 GV 30 HWCP   | 7000 | 75 | 100 | 20 | 32 | 262 | 230 | 240 | 230 | 0,2  |     |
| 6600/50 GV 15 HWCP   | 4300 | 65 | 95  | 16 | 27 | 262 | 230 | 240 | 230 | 0,3  |     |
| 6600/58 GV 30 HWCP   | 6500 | 85 | 105 | 70 | 28 | 36  | 262 | 230 | 240 | 230  | 0,2 |
| 6600/58 GV 30 HWUVCP | 6500 | 85 | 105 | 70 | 28 | 36  | 262 | 230 | 240 | 230  | 0,2 |

**WELLAMID PA 66 carbonfaserverstärkt & carbon-/glasfaserverstärkt /**

*WELLAMID PA 66 carbon fibre & carbon-/glass fibre reinforced \**

|                      |       |    |    |   |    |     |     |     |     |      |
|----------------------|-------|----|----|---|----|-----|-----|-----|-----|------|
| 6600 CF 10 HWCP      | 10500 | 35 | 65 | 6 | 14 | 262 | 250 | 250 | 230 | 0,4  |
| 6600 CF 20 HWCP      | 13500 | 38 | 72 | 6 | 16 | 262 | 250 | 250 | 230 | 0,35 |
| 6600 CF 30 HWCP      | 18500 | 42 | 78 | 7 | 18 | 262 | 250 | 250 | 230 | 0,25 |
| 6600 CFGV 20/10 HWCP | 14000 | 50 | 85 | 9 | 22 | 262 | 250 | 250 | 230 | 0,25 |

**WELLAMID PA 66 mineralgefüllt & mineral-/glasfaserverstärkt /**

*WELLAMID PA 66 mineral filled & mineral/ glass fibre reinforced \**

|                      |      |    |    |   |    |     |     |     |     |      |
|----------------------|------|----|----|---|----|-----|-----|-----|-----|------|
| 6600 MR 209 HWCP     | 3700 | 40 | 70 | 7 | 15 | 262 | 120 | 210 | 230 | 0,7  |
| 6600 MR 309 HWCP     | 4500 | 40 | 65 | 5 | 12 | 262 | 120 | 210 | 230 | 0,65 |
| 6600 MR 409 HWCP     | 5000 | 40 | 65 | 4 | 10 | 262 | 120 | 210 | 230 | 0,65 |
| 6600 MRGV 20/10 HWCP | 6000 | 40 | 65 | 5 | 12 | 262 | 250 | 250 | 230 | 0,3  |
| 6600 MRGV 20/20 HWCP | 7700 | 60 | 90 | 5 | 12 | 262 | 250 | 250 | 230 | 0,3  |
| 6600 MRGV 25/15 HWCP | 7300 | 40 | 70 | 5 | 10 | 262 | 230 | 250 | 230 | 0,35 |
| 6600 MRGV 25/15 HWCP | 7000 | 40 | 75 | 8 | 18 | 262 | 230 | 235 | 230 | 0,25 |

**WELLAMID PA 66 glasfaser-/glaskugelverstärkt / WELLAMID PA 66 glass fibre/ glass sphere reinforced\***

|                     |      |    |    |   |    |     |     |     |     |      |
|---------------------|------|----|----|---|----|-----|-----|-----|-----|------|
| 6600 GVS 15/10 HWCP | 5100 | 35 | 65 | 5 | 10 | 262 | 250 | 250 | 250 | 0,35 |
| 6600 GVS 20/10 HWCP | 7200 | 50 | 80 | 6 | 12 | 262 | 250 | 250 | 250 | 0,25 |

**WELLAMID PA 66 Spezialprodukte / WELLAMID PA 66 specialities**

|                |       |    |    |   |    |     |     |     |     |     |
|----------------|-------|----|----|---|----|-----|-----|-----|-----|-----|
| 6600 MZ 315 CP | 8400  | 48 | 75 | 5 | 10 | 262 | 250 | 250 | 230 | 0,2 |
| 6600 MZ 401 CP | 10800 | 30 | 55 | 3 | 9  | 262 | 220 | 250 | 230 | 0,2 |

\*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar/\*Share of reinforcing materials and fillers can be varied.  
Obige Werte sind unverbindliche Richtwerte! / The figures should be regarded as guide values only !



WELLAMID

## Elektrische Eigenschaften

### Electrical Properties

| Bem.<br>Maßeinheit / Unit   | 1 MHz            |   |     |      | Elekt. Durchschlagsfestigkeit |    | Vergl. Kriechwegbildung |   | Spez. Durchgangswiderstand |                  | Spez. Oberflächenwiderstand |                  |
|---|------------------|---|-----|------|-------------------------------|----|-------------------------|---|----------------------------|------------------|-----------------------------|------------------|
|   | 10 <sup>-4</sup> |   |     |      | kV/mm                         |    | Stufe                   |   | Ohm cm                     |                  | Ohm                         |                  |
| Prüfvorschrift / Test method  | IEC 250          |   |     |      | IEC 243-1                     |    | IEC 112                 |   | IEC 93                     |                  | **ISO 3915                  |                  |
| spritztrocken / dry (freshly moulded)   | X                |   | X   |      | X                             |    | X                       |   | X                          |                  | X                           |                  |
| luftfeucht / moist (after conditioning)   |                  | X |     | X    |                               | X  |                         | X |                            | X                |                             | X                |
| <b>WELLAMID PA 66 glasfaserverstärkte Qualitäten mit erhöhter Hydrolysestabilität / WELLAMID PA 66 glass fibre reinforced qualities with higher stability against hydrolysis*</b> |                  |   |     |      |                               |    |                         |   |                            |                  |                             |                  |
| 6600 GV 30 HYCP   | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66/6 glasfaserverstärkt flammgeschützt UL approbiert / WELLAMID PA 66/6 glass fibre reinforced flame retardant UL recognised*</b>                                  |                  |   |     |      |                               |    |                         |   |                            |                  |                             |                  |
| 6600-PA66-GV 20 HWV0CP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 600                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600-PA66-GV 25 HWV0CP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 600                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600-PA66-GV 30 HWV0CP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 600                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 glasfaserverstärkt modifiziert / WELLAMID PA 66 impact modified, glass fibre reinforced *</b>   |                  |   |     |      |                               |    |                         |   |                            |                  |                             |                  |
| 6600/42 GV 15 HWCP  | 4                | 6 | 150 | 1500 | 35                            | 35 | 550                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600/42 GV 30 HWCP  | 4                | 6 | 150 | 1500 | 35                            | 35 | 550                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600/50 GV 15 HWCP  | 4                | 6 | 150 | 1500 | 35                            | 35 | 550                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600/50 GV 30 HWCP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600/58 GV 15 HWCP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600/58 GV 30 HWCP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600/58 GV 30 HWUVCP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 550                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 carbonfaserverstärkt &amp; carbon-/glasfaserverstärkt / WELLAMID PA 66 carbon fibre &amp; carbon-/glass fibre reinforced *</b>                                  |                  |   |     |      |                               |    |                         |   |                            |                  |                             |                  |
| 6600 CF 10 HWCP   |                  |   |     |      |                               |    |                         |   | < 50**                     |                  | < 100**                     |                  |
| 6600 CF 20 HWCP   |                  |   |     |      |                               |    |                         |   | < 10**                     |                  | < 20**                      |                  |
| 6600 CF 30 HWCP   |                  |   |     |      |                               |    |                         |   | < 5**                      |                  | < 10**                      |                  |
| 6600 CFGV 20/10 HWCP  |                  |   |     |      |                               |    |                         |   | < 10**                     |                  | < 20**                      |                  |
| <b>WELLAMID PA 66 mineralgefüllt &amp; mineral-/glasfaserverstärkt / WELLAMID PA 66 mineral filled &amp; mineral/ glass fibre reinforced *</b>                                    |                  |   |     |      |                               |    |                         |   |                            |                  |                             |                  |
| 6600 MR 209 HWCP  | 4                | 6 | 150 | 600  | 35                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 MR 309 HWCP  | 4                | 6 | 150 | 600  | 35                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 MR 409 HWCP  | 4                | 6 | 150 | 600  | 35                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 MRGV 20/10 HWCP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 MRGV 20/20 HWCP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 MRGV 25/15 HWCP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 MRGV 30/10 HWCP  | 4                | 6 | 150 | 1500 | 40                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 glasfaser-/glaskugelverstärkt / WELLAMID PA 66 glass fibre/ glass sphere reinforced*</b>  |                  |   |     |      |                               |    |                         |   |                            |                  |                             |                  |
| 6600 GVS 15/10 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 GVS 20/10 HWCP   | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| <b>WELLAMID PA 66 Spezialprodukte / WELLAMID PA 66 specialities</b>   |                  |   |     |      |                               |    |                         |   |                            |                  |                             |                  |
| 6600 MZ 315 CP  | 4                | 6 | 150 | 1500 | 35                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |
| 6600 MZ 401 CP  | 4                | 6 | 150 | 1000 | 35                            | 35 | 450                     |   | 10 <sup>15</sup>           | 10 <sup>12</sup> | 10 <sup>12</sup>            | 10 <sup>10</sup> |



WELLAMID

**Sonstige Eigenschaften**

*Additional Properties*

|  | Dichte<br><i>den-<br/>sity</i> | Brennbarkeit<br><i>flammability</i> |        |        |       | Feuchte-<br>aufnahme bis<br>Sätti-<br>gung<br><br><i>satura-<br/>tion<br/>value at</i> | Verarbeitungs-<br>schwindung<br>längs/quer<br><br><i>molding<br/>shrinkage<br/>parallel/<br/>across</i> | Bemerkungen<br><br><i>additional remarks</i> |
|--|--------------------------------|-------------------------------------|--------|--------|-------|--|---|--|
|  |                                | 0,8 mm                              | 1,6 mm | 3,2 mm | 23/50 |  |   |  |

| Bem.                                    |                   | 0,8 mm | 1,6 mm | 3,2 mm | 23/50 | Platte 60x60x2<br>mm <sup>3</sup> |   |  |
|---|-------------------|--------|--------|--------|-------|-----------------------------------|---|--|
| Maßeinheit / Unit                       | g/cm <sup>3</sup> | Stufe  | Stufe  | Stufe  | %     | %                                 |   |  |
| Prüfvorschrift / Test method            | ISO<br>1183       | UL-94  |        |        |       | DIN<br>53495                      | - |  |
| spritztrocken / dry (freshly moulded)   | X                 | X      | X      | X      | X     | X                                 | X |  |
| luftfeucht / moist (after conditioning) |                   | X      | X      | X      | X     |                                   |   |  |

**WELLAMID PA 66 glasfaserverstärkte Qualitäten mit erhöhter Hydrolysestabilität / WELLAMID PA 66 glass fibre reinforced qualities with higher stability against hydrolysis\***

|                 |      |  |  |    |    |    |    |         |         |  |
|-----------------|------|--|--|----|----|----|----|---------|---------|--|
| 6600 GV 30 HYCP | 1,36 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7 |  |
|-----------------|------|--|--|----|----|----|----|---------|---------|--|

**WELLAMID PA 66/6 glasfaserverstärkt flammgeschützt UL approbiert / WELLAMID PA 66/6 glass fibre reinforced flame retardant UL recognised\***

|                        |      |     |     |     |     |     |     |         |         |                                       |
|------------------------|------|-----|-----|-----|-----|-----|-----|---------|---------|---------------------------------------|
| 6600-PA66-GV 20 HWV0CP | 1,34 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | 2-2,5   | 0,2/0,7 | UL- approbiert/ UL- approved All.Col. |
| 6600-PA66-GV 25 HWV0CP | 1,37 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | 2-2,5   | 0,2/0,7 | UL- approbiert/ UL- approved All.Col. |
| 6600-PA66-GV 30 HWV0CP | 1,41 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | 1,8-2,3 | 0,2/0,7 | UL- approbiert/ UL- approved All.Col. |

**WELLAMID PA 66 glasfaserverstärkt modifiziert / WELLAMID PA 66 impact modified, glass fibre reinforced \***

|                      |      |  |  |    |    |    |    |         |         |  |
|----------------------|------|--|--|----|----|----|----|---------|---------|--|
| 6600/42 GV 15 HWCP   | 1,19 |  |  | HB | HB | HB | HB | 2,2-2,7 | 0,3/0,8 |  |
| 6600/42 GV 30 HWCP   | 1,29 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7 |  |
| 6600/50 GV 15 HWCP   | 1,19 |  |  | HB | HB | HB | HB | 2,2-2,7 | 0,3/0,8 |  |
| 6600/50 GV 30 HWCP   | 1,29 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7 |  |
| 6600/58 GV 15 HWCP   | 1,18 |  |  | HB | HB | HB | HB | 2-2,5   | 0,2/0,7 |  |
| 6600/58 GV 30 HWCP   | 1,27 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7 |  |
| 6600/58 GV 30 HWUVCP | 1,27 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7 |  |

**WELLAMID PA 66 carbonfaserverstärkt & carbon-/glasfaserverstärkt / WELLAMID PA 66 carbon fibre & carbon-/glass fibre reinforced \***

|                      |      |  |  |    |    |    |    |         |         |  |
|----------------------|------|--|--|----|----|----|----|---------|---------|--|
| 6600 CF 10 HWCP      | 1,19 |  |  | HB | HB | HB | HB | 2,2-2,7 | 0,4/0,9 | elektr.leitfähig/ impr.electr.conductivity |
| 6600 CF 20 HWCP      | 1,22 |  |  | HB | HB | HB | HB | 2- 2,5  | 0,2/0,7 | elektr.leitfähig/ impr.electr.conductivity |
| 6600 CF 30 HWCP      | 1,27 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7 | elektr.leitfähig/ impr.electr.conductivity |
| 6600 CFGV 20/10 HWCP | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,2/0,7 | elektr.leitfähig/ impr.electr.conductivity |

**WELLAMID PA 66 mineralgefüllt & mineral-/glasfaserverstärkt / WELLAMID PA 66 mineral filled & mineral/ glass-fibre reinforced \***

|                      |      |  |  |    |    |    |    |         |          |                                 |
|----------------------|------|--|--|----|----|----|----|---------|----------|---------------------------------|
| 6600 MR 209 HWCP     | 1,27 |  |  | HB | HB | HB | HB | 2-2,5   | 0,9 -1,1 |                                 |
| 6600 MR 309 HWCP     | 1,36 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,9-1,1  |                                 |
| 6600 MR 409 HWCP     | 1,45 |  |  | HB | HB | HB | HB | 1,5-2   | 0,9-1,1  |                                 |
| 6600 MRGV 20/10 HWCP | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,3 | 0,6/0,8  |                                 |
| 6600 MRGV 20/20 HWCP | 1,48 |  |  | HB | HB | HB | HB | 1,5-2   | 0,4/0,7  |                                 |
| 6600 MRGV 25/15 HWCP | 1,48 |  |  | HB | HB | HB | HB | 1,5-2   | 0,5/0,7  | UL- approbiert/ UL- approved BK |
| 6600 MRGV 30/10 HWCP | 1,5  |  |  | HB | HB | HB | HB | 1,3-1,8 | 0,5/0,7  |                                 |

**WELLAMID PA 66 glasfaser-/glaskugelverstärkt / WELLAMID PA 66 glass fibre/ glass sphere reinforced\***

|                     |      |  |  |    |    |    |    |         |         |  |
|---------------------|------|--|--|----|----|----|----|---------|---------|--|
| 6600 GVS 15/10 HWCP | 1,31 |  |  | HB | HB | HB | HB | 2,0-2,5 | 0,5/0,7 |  |
| 6600 GVS 20/10 HWCP | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,5 | 0,5/0,7 |  |

**WELLAMID PA 66 Spezialprodukte / WELLAMID PA 66 specialities**

|                |      |  |  |    |    |    |    |         |         |                                    |
|----------------|------|--|--|----|----|----|----|---------|---------|------------------------------------|
| 6600 MZ 315 CP | 1,35 |  |  | HB | HB | HB | HB | 1,8-2,5 | 0,5/0,7 | wärmestabilisiert/ heat stabilised |
| 6600 MZ 401 CP | 1,48 |  |  | HB | HB | HB | HB | 1,8-2,5 | 0,5/0,6 | wärmestabilisiert/ heat stabilised |

\*Füll- und Verstärkungsstoffe in anderen Anteilen lieferbar/\*Share of reinforcing materials and fillers can be varied. Obige Werte sind unverbindliche Richtwerte! / The figures should be regarded as guide values only !



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