

PRODUCT INFORMATION
OKULEN® 2000 - Grey blue - FN7210

OKULEN® 2000 – grey blue – FN7210 is a sintered ultra-high-molecular-weight-polyethylene (UHMW-PE) Polymer. It has a very high abrasion resistance and excellent sliding properties.

Properties:

- EU1935/2004 - conform
- EU10/2011 - conform
- FDA - conform
- very good abrasion resistance
- excellent sliding properties

Colour:

grey blue FN7210 / similar RAL7031

Range of applications:

- Food industry
- Conveying industry

Ottensteiner Kunststoff GmbH & Co. KG

Im Garbrock 39, 48683 Ahaus-Ottenstein Germany

Phone: +49 (0) 2561-9824-0

Internet: www.okulen.come-mail: info@okulen.com

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Characteristics and standard values

| Properties | Method | OKULEN® 2000 - Grey blue - FN7210 | |
|--|---|-----------------------------------|--|
| | | SI | US |
| Physical properties | | | |
| Molecular-weight | k.a. | 7.0 - 9.0 Mio. g/mol. | 7.0 - 9.0 Mio. g/mol. |
| Density | DINENISO 1183-1 (09/2019) ASTM D792 | > 0.930 g/cm ³ | > 58.058 lb/ft ³ |
| Notched impact strength | DINENISO 21304-2 (04/2021) | > 100 kJ/m ² | > 47.55 ft-lb/in ² |
| Abrasion-Index (Sand-Slurry) | DINENISO 15527 (05/2022) | ~ 80 | ~ 80 |
| Tensile strength at yield (1B - 50mm/Min.) | DINENISO 527-2 (06/2012) ASTM D 638 (2010) | > 17 N/mm ² | > 2465 psi |
| | --- | --- | --- |
| Elongation (Break / 1B - 50mm/Min.) | DINENISO 527-2 (06/2012) ASTM D 638 (2010) | > 250 % | > 250 % |
| Tensile-E-modulus (1B - 1mm/Min.) | DINENISO 527-2 (06/2012) ASTM D 638 (2010) | > 600 N/mm ² | > 87000 psi |
| | --- | --- | --- |
| Static Friction | ASTM D 1894 (2014) | ~ 0.15 - 0.20 | ~ 0.15 - 0.20 |
| Dynamic Friction | ASTM D 1894 (2014) | ~ 0.10 - 0.15 | ~ 0.10 - 0.15 |
| Shore-D-Hardness, 3 sec. value 6 mm plate | DINENISO 868 (10/2003) | 61 - 65 D | 61 - 65 D |
| Ball indentation hardness | DINENISO 2039 | ~ 35 N/mm ² | ~ 5075 psi |
| Water absorption | DINENISO 62 (05/2008) | < 0.01 % | < 0.01 % |
| Thermal properties | | | |
| Melting Point (DSC) | DINENISO 11357-1 (03/2010) | 133 - 135 °C | 271.4 - 275 °F |
| Thermal Conductivity | Wire method | ~ 0.41 W/m*K | ~ 2.84253 (BTU-in)/hr-ft ² -°F |
| Max. operation temperature | Literature | ~ 80 °C | ~ 176 °F |
| Coefficient of thermal expansion (23 - 80°C) | ISO 11359 | ~ 0.00015 - 0.00020 mm/mm °C | ~ 0.000083 - 0.000111 in/in °F |
| Electrical properties | | | |
| Volume resistivity | DINEN 62631-3-1 (01/2017) | > 1.0E14 Ohm*cm | > 1.0E14 Ohm*cm |
| Surface resistivity | DINEN 62631-3-2 (10/2016) | > 1.0E13 Ohm | > 1.0E13 Ohm |
| ATEX-Directive - TÜV approved! | ATEX-Directive | --- | --- |
| ESD-D | --- | --- Ohm | --- Ohm |
| Burning properties | | | |
| Fire resistance (Self-classification) | DIN 4102 | B2 Klasse | B2 Class |
| Fire resistance (Self-classification) | UL94 | HB Klasse | HB Class |
| Physiological properties | | | |
| Food compliant | | EU/FDA | EU/FDA |

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