PRODUCT INFORMATION
OKULEN® 2000 - GB - natural - FN0004

OKULEN® 2000 - GB is enhanced with a glass filler which gives the UHMW-PE (~ 9 mio. g/mol) a higher abrasion resistance than standard material. It offers excellent impact strength for tough applications.

Properties:

- extremely wear resistant
- good sliding properties
- good chemical resistance
- low maintenance
- longer life time over standard UHMW-PE
- EU1935/2004 - conform
- EU10/2011 - conform

Colour: natural FN0004

Range of applications:

- Machine construction
- Conveyor industry
- Agriculture, farming equipment
- Waste water and filtration systems
- Paper industry (wet section of a paper machine)

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Characteristics and standard values

Properties	Method	OKULEN® 2000 - GB - natural - FN0004	
Physical properties		**SI**	**US**
Molecular-weight	k.a.	~ 9.0 Mio. g/mol.	~ 9.0 Mio. g/mol.
Density	DINENISO 1183-1 (04/2013) ASTM D792	0.95 g/cm³	59.306 lb/ft³
Notched impact strength	DINENISO 11542-2 (01/2010)	> 120 kJ/m²	> 57.06 ft-lb/in²
Abrasion-Index (Sand-Slurry)	DINENISO 15527 (05/2013)	75	75
Tensile strength (1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 18 N/mm²	> 2610 psi
Breaking strength (1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 28 N/mm²	> 4060 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)	> 680 N/mm²	> 98600 psi
Flexural modulus	ISO 178 (09/2013) ASTM D 790 (2010)	--- N/mm²	--- psi
Static Friction	ASTM D 1894 (2011)	> 0.14	> 0.14
Dynamic Friction	ASTM D 1894 (2011)	> 0.09	> 0.09
Shore-D-Hardness, 3 sec. value 6 mm plate	DINENISO 868 (10/2003)	65 - 70 D	65 - 70 D
Ball indentation hardness	DINENISO 2039	~ 38 N/mm²	~ 5510 psi
Water absorption	DINENISO 62 (05/2008)	< 0.1 %	< 0.1 %
Thermal properties			
Melting Point (DSC)	DINENISO 11357-1 (03/2010)	135 - 137 °C	275 - 278.6 °F
Thermal Conductivity	Wire method	~ 0.41 W/m*K	~ 2.46 (BTU-in)/hr-ft²-°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 resistifity	IEC 60093 (12/1993)	> 1.0E14 Ohm*cm	> 1.0E14 Ohm*cm
Surface resistifity	IEC 60093 (12/1993)	> 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	EU

The above data are based on the present knowledge and are given without guarantee. Existing laws and conditions are to be respected by the user of our products. The decision about the suitability of a material for a certain application must be made by the user. We reserve the right to alter the indicated data. The indicated values are for a 15 mm thick sheet.

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