

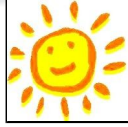
PRODUCT INFORMATION
OKULEN[®] 1000 Reg.-black-UV-FN9100

OKULEN[®] 1000-Reg. (UHMW-PE)

Ultra high molecular weight low pressure polyethylene with regenerated (recycled) materials.

Properties:

- UV - stabilized



Colour:

UV - black FN9100 / similar RAL9005

Range of applications:

- Mechanical engineering
- Outdoor applications

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PRODUCT INFORMATION
OKULEN® 1000 Reg.-black-UV-FN9100

Characteristics and standard values

Properties	Method	OKULEN® 1000 Reg.-black-UV-FN9100	
		SI	US
Physical properties			
Molecular-weight	k.a.	> 2.0 Mio. g/mol.	> 2.0 Mio. g/mol.
Density	DINENISO 1183-1 (09/2019) ASTM D792	> 0.940 g/cm ³	> 58.682 lb/ft ³
Notched impact strength	DINENISO 21304-2 (04/2021)	> 70 kJ/m ²	> 33.285 ft-lb/in ²
Abrasion-Index (Sand-Slurry)	DINENISO 15527 (05/2022)	130 - 150	130 - 150
Tensile strength at yield (1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 20 N/mm ²	> 2900 psi
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Elongation (Break / 1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 150 %	> 150 %
Tensile-E-modulus (1B - 1mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 700 N/mm ²	> 101500 psi
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Static Friction	ASTM D 1894 (2014)	~ 0.16 - 0.22	~ 0.16 - 0.22
Dynamic Friction	ASTM D 1894 (2014)	~ 0.10 - 0.16	~ 0.10 - 0.16
Shore-D-Hardness, 3 sec. value 6 mm plate	DINENISO 868 (10/2003)	62 - 67 D	62 - 67 D
Ball indentation hardness	DINENISO 2039	36 N/mm ²	5220 psi
Water absorption	DINENISO 62 (05/2008)	< 0.01 %	< 0.01 %
Thermal properties			
Melting Point (DSC)	DINENISO 11357-1 (03/2010)	133 - 137 °C	271.4 - 278.6 °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	~ 0.00020 mm/mm °C	~ 0.000111 in/in °F
Electrical properties			
Volume resistivity	DINEN 62631-3-1 (01/2017)	< 1.0E9 Ohm*cm	< 1.0E9 Ohm*cm
Surface resistivity	DINEN 62631-3-2 (10/2016)	< 1.0E9 Ohm	< 1.0E9 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		---	---

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