

PRODUCT INFORMATION
OK 1000 - ESD

OKULEN® 1000 is an ultra high molecular low pressure polyethylene with a molecular weight > 3.500.000 g/mol.

Properties:



Colour:

black
OK-FN:
9060

PRODUCT INFORMATION

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Characteristics and standard values

Properties	Method	OK 1000 - ESD	
		SI	US
Physical properties			
Molecular-weight	k.a.	5.0 Mio. g/mol.	5.0 Mio. g/mol.
Density	ASTM D792	0.950 g/cm ³	59.306 lb/ft ³
Notched impact strength	ISO 11542-2 (01/1999)	140 kJ/m ²	66.57 ft-lb/in ²
Abrasion-Index (Sand-Slurry)	DINENISO 15527 (05/2013)	100 %	100 %
Tensile strength	ASTM D 638 (2010)	18 N/mm ²	2610 psi
Breaking strength	ASTM D 638 (2010)	28 N/mm ²	4060 psi
Elongation (Break)	ASTM D 638 (2010)	> 350 %	> 350 %
Tensile-E-modulus	ASTM D 638 (2010)	680 N/mm ²	98600 psi
Flexural modulus	ASTM D 790 (2010)		
Static Friction	ASTM D 1894 (2011)	~ 0.15 - 0.20	~ 0.15 - 0.20
Dynamic Friction	ASTM D 1894 (2011)	~ 0.10 - 0.15	~ 0.10 - 0.15
Shore-D-Hardness, 3 sec. value 6 mm plate	ISO 868 (10/2003)	61 - 65 D	61 - 65 D
Ball indentation hardness	ISO 2039	35 N/mm ²	5075 psi
Water absorption	ISO 62 (05/2008)	< 0.01 %	< 0.01 %
Thermal properties			
Melting Point (DSC)	ISO 11357-1 (03/2010)	133 - 135 °C	271.4 - 275 °F
Thermal Conductivity	Wire method	0.41 W/m*K	2.46 (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	IEC 60093 (12/1993)	< 1.0E+8 Ohm*cm	< 1.0E+8 Ohm*cm
Surface resistivity	IEC 60093 (12/1993)	1.0E+6 - 1.0E+8 Ohm	1.0E+6 - 1.0E+8 Ohm
Atec-Directive	Atec-Directive		
ESD-D		Ja Ohm	Ja Ohm
Burning properties			
Fire resistance	DIN 4102	B2 Klasse	B2 Class
Fire resistance	UL 94	HB Klasse	HB Class
Physiological properties			
Food compliant			

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.