

PRODUCT INFORMATION
OKULEN® 2000 - H - white - FN9252

OKULEN® OK 2000 – H – FN9252 is premier UHMW-PE Polymer containing special additives which protects the material from breaking apart at extreme temperatures. This material grade is used in high temp applications where normal UHMW-PE fails. The enhanced material was designed to still operate effectively under lower load, with a temperature range peaking 150°C for a short time.

Properties:

- long term operating temperature possible at Peak range 150°C (only at lower loads)
- EU1935/2004 - conform
- EU10/2011 - conform
- FDA - conform
- up to 10 x longer life time at higher temperatures than any standard grade of UHMW-PE

Colour:

white FN9252

Range of applications:

- Bakeries (bun racks),
- Food industry,
- For windows (with arches)

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Characteristics and standard values

Properties	Method	OKULEN® 2000 - H - white - FN9252	
Physical properties		SI	US
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	> 0.940 g/cm ³	> 58.682 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
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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)	> 650 N/mm ²	> 94250 psi
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Static Friction	ASTM D 1894 (2014)	~ 0,18	~ 0.18
Dynamic Friction	ASTM D 1894 (2014)	~ 0,13	~ 0.13
Shore-D-Hardness, 3 sec. value 6 mm plate	DINENISO 868 (10/2003)	61 - 63 D	61 - 63 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)	135 - 137 °C	275 - 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	~ 0.00015 - 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

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, unannealed. Black sheets may have antistatic properties.

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