PRODUCT INFORMATION
OKULEN® 1000 - yellow - FN1000

OKULEN® 1000 is an ultra high molecular low pressure polyethylene (UHMW-PE) with a molecular weight of 3 - 5.000.000 g/mol..

Properties:
- good wear resistance
- very high notched impact strength
- very good sliding properties
- extremely versatile
- EU1935/2004 - conform
- EU10/2011 - conform
- FDA - conform

Colour: yellow - FN1000 / simillar RAL1021

Range of applications:
- Mechanical industry
- Conveying industry
- Food industry
- Chemical industry

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Characteristics and standard values

Properties	Method	OKULEN® 1000 - yellow - FN1000	
Physical properties		**SI**	**US**
Molecular-weight	k.a.	3.0 - 5.0 Mio. g/mol.	3.0 - 5.0 Mio. g/mol.
Density	DINENISO 1183-1 (09/2025) (Method A)	> 0.930 g/cm³	> 58.058 lb/ft³
Notched impact strength	DINENISO 21304-2 (04/2021) (3 mm Double-V-Notch)	> 140 kJ/m²	> 66.57 ft-lb/in²
Abrasion-Index (Sand-Slurry)	DINENISO 15527 (05/2022)	100	100
Tensile strength at yield (A2 - 50mm/Min.)	DINENISO 527-2 (09/2025) ASTM D 638 (2022)	> 18 N/mm²	> 2610 psi
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Elongation (Break / A2 - 50mm/Min.)	DINENISO 527-2 (09/2025) ASTM D 638 (2022)	> 350 %	> 350 %
Tensile-E-modulus (A2 - 1mm/Min.)	DINENISO 527-2 (09/2025) ASTM D 638 (2022)	> 650 N/mm²	> 94250 psi
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Static Friction	ASTM D 1894 (2024) (vs. Steel: Surface roughness Rz2)	~ 0.15 - 0.20	~ 0.15 - 0.20
Dynamic Friction	ASTM D 1894 (2024) (vs. Steel : Surface roughness Rz2)	~ 0.10 - 0.15	~ 0.10 - 0.15
Shore-D-Hardness, 15 sec. value 6 mm plate	DINENISO 868 (10/2003)	61 - 65 D	61 - 65 D
Ball indentation hardness	DINENISO 2039-1 (06/2003)	~ 35 N/mm²	~ 5075 psi
Water absorption	DINENISO 62 (05/2008)	< 0.01 %	< 0.01 %
Thermal properties			
Melting Point (DSC)	DINENISO 11357-3 (09/2025)	133 - 135 °C	271.4 - 275 °F
Thermal Conductivity	Wire method	~ 0.41 W/m*K	~ 2.84253 (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 resistivity	DINEN 62631-3-1 (01/2017)	> 1E14 Ohm*cm	> 1E14 Ohm*cm
Surface resistivity	DINEN 62631-3-2 (10/2016)	> 1E13 Ohm	> 1E13 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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