PRODUCT INFORMATION
OKULEN® 500 - yellow - FN1000

OKULEN® 500 is a high molecular low pressure polyethylene with a molecular weight of approx. 500.000 g/mol. (HMW-PE)

Properties:
- EU1935/2004 - conform
- EU10/2011 - conform
- FDA - conform

Colour: yellow FN1000 / simillar RAL1021

Range of applications:
- Food industry

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Characteristics and standard values

Properties	Method	OKULEN® 500 - yellow - FN1000	
Physical properties		**SI**	**US**
Molecular-weight	k.a.	~ 0.5 Mio. g/mol.	~ 0.5 Mio. g/mol.
Density	DINENISO 1183-1 (09/2019) ASTM D792	> 0.950 g/cm³	> 59.306 lb/ft³
Notched impact strength	DINENISO 21304-2 (04/2021)	> 15 kJ/m²	> 7.1325 ft-lb/in²
Abrasion-Index (Sand-Slurry)	DINENISO 15527 (05/2022)	360 - 440	360 - 440
Tensile strength at yield (1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 26 N/mm²	> 3770 psi
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Elongation (Break / 1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 350 %	> 350 %
Tensile-E-modulus (1B - 1mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 1000 N/mm²	> 145000 psi
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Static Friction	ASTM D 1894 (2014)	~ 0.15 - 0.22	~ 0.15 - 0.22
Dynamic Friction	ASTM D 1894 (2014)	~ 0.10 - 0.15	~ 0.10 - 0.15
Shore-D-Hardness, 3 sec. value 6 mm plate	DINENISO 868 (10/2003)	65 - 70 D	65 - 70 D
Ball indentation hardness	DINENISO 2039	~ 50 N/mm²	~ 7250 psi
Water absorption	DINENISO 62 (05/2008)	< 0.01 %	< 0.01 %
Thermal properties			
Melting Point (DSC)	DINENISO 11357-1 (03/2010)	133 - 136 °C	271.4 - 276.8 °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)	> 1.0E+14 Ohm*cm	> 1.0E+14 Ohm*cm
Surface resistivity	DINEN 62631-3-2 (10/2016)	> 1.0E+13 Ohm	> 1.0E+13 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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