

PRODUCT INFORMATION
OKULEN® 1000 - natural - FN0000

OKULEN® 1000 - natural - FN0000 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:

natural FN0000

Range of applications:

- Mechanical industry
- Conveying industry
- Food industry
- Chemical industry

SUPPLY SERVICES

performance engineering products

Ottensteiner Kunststoff GmbH & Co. KG

Im Garbrock 39, 48683 Ahaus-Ottenstein Germany

Phone: +49 (0) 2561-9824-0

Internet: www.okulen.come-mail: info@okulen.com

PRODUCT INFORMATION
OKULEN® 1000 - natural - FN0000

Characteristics and standard values

Properties	Method	OKULEN® 1000 - natural - FN0000	
		SI	US
Physical properties			
Molecular-weight	k.a.	3.0 - 5.0 Mio. g/mol.	3.0 - 5.0 Mio. g/mol.
Density	DINENISO 1183-1 (09/2019) ASTM D792	> 0.930 g/cm ³	> 58.058 lb/ft ³
Notched impact strength	DINENISO 21304-2 (04/2021)	> 170 kJ/m ²	> 80.835 ft-lb/in ²
Abrasion-Index (Sand-Slurry)	DINENISO 15527 (05/2022)	100	100
Tensile strength at yield (1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 18 N/mm ²	> 2610 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)	> 650 N/mm ²	> 94250 psi
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Static Friction	ASTM D 1894 (2014)	~ 0.15 - 0.20	~ 0.15 - 0.20
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)	61 - 65 D	61 - 65 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)	133 - 135 °C	271.4 - 275 °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

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PRODUCT INFORMATION
OKULEN® 1000 - blue - FN5100

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:

blue FN5100 / similar RAL 5015

Range of applications:

- Mechanical industry
- Conveying industry
- Food industry
- Chemical industry

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e-mail: info@okulen.com

PRODUCT INFORMATION
OKULEN® 1000 - blue - FN5100

Characteristics and standard values

Properties	Method	OKULEN® 1000 - blue - FN5100	
		SI	US
Physical properties			
Molecular-weight	k.a.	3.0 - 5.0 Mio. g/mol.	3.0 - 5.0 Mio. g/mol.
Density	DINENISO 1183-1 (09/2019) ASTM D792	> 0.930 g/cm ³	> 58.058 lb/ft ³
Notched impact strength	DINENISO 21304-2 (04/2021)	> 140 kJ/m ²	> 66.57 ft-lb/in ²
Abrasion-Index (Sand-Slurry)	DINENISO 15527 (05/2022)	100	100
Tensile strength at yield (1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 18 N/mm ²	> 2610 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)	> 650 N/mm ²	> 94250 psi
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ATEX-Directive - TÜV approved!	ATEX-Directive	---	---
ESD-D	---	--- Ohm	--- Ohm
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