

**PRODUCT INFORMATION**  
**OKULEN® 500 natural - FN0000**

OKULEN® 500 natural - FN0000 is a high molecular low pressure polyethylene with a molecular weight of approx. 500.000 g/mol. (HMW-PE).

Properties:

- EU1935/2004 & 10/2011 - conform
- FDA - conform

Colour:

natural FN0000

Range of applications:

- Food industry
- Chemical industry

**SUPPLY SERVICES**

performance engineering products

**Ottensteiner Kunststoff GmbH & Co. KG**

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**PRODUCT INFORMATION**  
**OKULEN® 500 natural - FN0000**

## Characteristics and standard values

Properties	Method	OKULEN® 500 natural - FN0000	
		SI	US
<b>Physical properties</b>			
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/cm <sup>3</sup>	59.306 lb/ft <sup>3</sup>
Notched impact strength	DINENISO 21304-2 (04/2021)	19 kJ/m <sup>2</sup>	9.0345 ft-lb/in <sup>2</sup>
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/mm <sup>2</sup>	> 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/mm <sup>2</sup>	> 145000 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)	65 - 67 D	65 - 67 D
Ball indentation hardness	DINENISO 2039	50 N/mm <sup>2</sup>	7250 psi
Water absorption	DINENISO 62 (05/2008)	< 0,01 %	< 0.01 %
<b>Thermal properties</b>			
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-ft <sup>2</sup> -°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
<b>Electrical properties</b>			
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
<b>Burning properties</b>			
Fire resistance (Self-classification)	DIN 4102	B2 Klasse	B2 Class
Fire resistance (Self-classification)	UL94	HB Klasse	HB Class
<b>Physiological properties</b>			
Food compliant		EU/FDA	EU/FDA

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**PRODUCT INFORMATION**  
**OKULEN® 500 - black - FN9000**

OKULEN® 500 is a high molecular low pressure polyethylene with a molecular weight of approx. 500.000 g/mol.

Colour: black OK-FN: 9000

## Characteristics and standard values

Properties	Method	OKULEN® 500 - black - FN9000	
		SI	US
<b>Physical properties</b>			
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)	> 250 %	> 250 %
Tensile-E-modulus (1B - 1mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 1000 N/mm²	> 145000 psi
	---	---	---
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 - 67 D	65 - 67 D
Ball indentation hardness	DINENISO 2039	50 N/mm²	7250 psi
Water absorption	DINENISO 62 (05/2008)	< 0,01 %	< 0.01 %
<b>Thermal properties</b>			
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
<b>Electrical properties</b>			
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
<b>Burning properties</b>			
Fire resistance (Self-classification)	DIN 4102	B2 Klasse	B2 Class
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