

PRODUCT INFORMATION
OKULEN® 2000 - F-Ex - FN9990

OKULEN® OK 2000 F-Ex -FN9990 is a virgin UHMW-PE polymer with advanced flame retardant properties. This material is halogen free! Even with the additive used to extinguish the flame, great gliding properties and good wear resistance are still achieved through using the highest polymer possible. With a good impact strength, it was designed for such applications in conveyor systems used in the mining field.

The flame retardant classification is measured to UL (Underwriters Laboratories) standard using the method UL94 = V0, vertical flame test and MSHA – Mining industry – USA.

Properties:

- Flame retardant
- halogen free
- conductive properties
- low friction for great wear properties
- UV-stabilized Tested against following flammability standards and corresponding rating:
 - FMVSS 302 = does not burn
 - UL 94 = V-0
 - MSHA (USA-Mining) = IC-266 (min. thickness: 12,7 mm)

Colour:

black-silver FN9990

Range of applications:

- Off-road transportation
- Construction industry
- Mechanical engineering
- Mining industry
- Harbours / Docks

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® 2000 - F-Ex - FN9990

Characteristics and standard values

Properties	Method	OKULEN® 2000 - F-Ex - FN9990	
		SI	US
Physical properties			
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	> 1.020 g/cm ³	> 63.676 lb/ft ³
Notched impact strength	DINENISO 21304-2 (04/2021)	> 50 kJ/m ²	> 23.775 ft-lb/in ²
Abrasion-Index (Sand-Slurry)	DINENISO 15527 (05/2022)	110 - 140	110 - 140
Tensile strength at yield (1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 17 N/mm ²	> 2465 psi
	---	---	---
Elongation (Break / 1B - 50mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 50 %	> 50 %
Tensile-E-modulus (1B - 1mm/Min.)	DINENISO 527-2 (06/2012) ASTM D 638 (2010)	> 1000 N/mm ²	> 145000 psi
	---	---	---
Static Friction	ASTM D 1894 (2014)	~ 0,15	~ 0.15
Dynamic Friction	ASTM D 1894 (2014)	~ 0,08	~ 0.08
Shore-D-Hardness, 3 sec. value 6 mm plate	DINENISO 868 (10/2003)	61 - 64 D	61 - 64 D
Ball indentation hardness	DINENISO 2039	~ 35 N/mm ²	~ 5075 psi
Water absorption	DINENISO 62 (05/2008)	< 1,5 %	< 1.5 %
Thermal properties			
Melting Point (DSC)	DINENISO 11357-1 (03/2010)	135 - 137 °C	275 - 278.6 °F
Thermal Conductivity	Wire method	--- W/m*K	--- (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)	< 1.0E6 Ohm*cm	< 1.0E6 Ohm*cm
Surface resistivity	DINEN 62631-3-2 (10/2016)	< 1.0E6 Ohm	< 1.0E6 Ohm
ATEX-Directive - TÜV approved!	ATEX-Directive	---	---
ESD-D	---	--- Ohm	--- Ohm
Burning properties			
Fire resistance (Self-classification)	DIN 4102	--- Klasse	--- Class
Fire resistance (Self-classification)	UL94	VO Klasse	VO Class
Physiological properties			
Food compliant		---	---

Ottensteiner Kunststoff GmbH & Co. KG

Im Garbrock 39, 48683 Ahaus-Ottenstein Germany

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

Internet: www.okulen.com

e-mail: info@okulen.com