



TSE-OK, L.L.C.

July 1, 2013

Product information

OK 2000 – # 181 Q Yellow

OK 2000 – Q yellow # 181 is a premier blend of UHMW Polymer with a 7 – 9 million Molecular weight. Using a unique additive we are able to offer a UHMW product with extreme abrasion resistance even in the most toughest applications. This grade is corrosion resistant and has excellent impact strength. It was designed for the use in off-road vehicles, heavy earth moving equipment and Mining equipment as a protective UHMW Liner.

Properties: Extreme abrasion resistance, highest in its class
UV-stabilized
Very low maintenance on equipment lined with # 181
Longer lifetime = very cost effective
Liner will increase the life of steel substrate
Formula is weldable !

Color: Yellow # 181

Application fields: earth moving equipment (buckets)
Off road Truck liners
chutes, hopper liners
conveying systems (coal, cement. etc)
bulk goods handling

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.

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Physical Properties Data Sheet

OK 2000 – Q # 181 (UHMW – PE) Characteristics and standard values

Physical Properties	Method	SI Unit	SI Value
Density	ASTM D792 ISO 1183-1	g/cc g/cm ³	> 0.94 > 0.94
Abrasion (Sand-Slurry-Test rel. to GUR 4120 = 100%)	ISO 15527	% (Average)	70 (± 10%)
Notched impact strength	ISO 11542-2	mJ/mm ² kJ/m ²	> 80
Tensile strength, yield	ASTM D638 ISO 527-2	psi MPa	> 2500 > 17
Break elongation	ASTM D638 ISO 527-2	% %	> 350 > 50
Creep properties under varying compressive stress : Creep <10%	max.	psi MPa	1550 11
Coefficient of friction, ASTM 1894 metal= Rz 2,5 μ, Pm= 2 N/mm ² , V= 150 mm/min	Static Dynamic	μ μ	0.13 0.08
Shore-hardness, 3-s-value 6mm plate	ASTM D2240 ISO 868 / DIN 53505	D D	66 66
Water absorption	---	%	< 0.1 (Nil)
Flammability	UL 94	---	HB
Thermal Properties			
Melt temperature	ASTM 3417 (DSC) ISO 3146 (DSC)	°F °C	275 – 278 135 – 137
Permanent operation temp., max.	---	°F °C	176 80
Coefficient of linear expansion	ASTM D696 DIN 53752	73 – 176 °F 23 – 80°C	≈ 1.1x10 ⁻⁴ /°F ≈ 2.0x10 ⁻⁴ /°C
Electrical Properties			
Surface resistivity	ASTM D257 IEC 93	Ohm Ω	> 10 ¹⁴ > 10 ¹⁴
Volume resistivity	ASTM D257 IEC 93	Ohm-cm Ω*cm	> 10 ¹⁴ > 10 ¹⁴

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