

### TSE-OK, L.L.C.

July 1, 2013

#### **Product information**

#### OK 2000 - Blue # 589

**OK 2000 - Blue # 589** is a UHMW polymer with 7-9 million molecular weight. The improved low coefficient of friction makes this material ideal for lining applications where sticking or caking creates a build-up of material. In such applications where there is a material flow problem - time and money are being lost. Our #589 formula will help you solve these problems.

**Properties:** Excellent sliding properties

Low coefficient of friction

Good notched impact strength

No sticking or caking of bulk material

Weldable

Color: Blue # 589

**Application fields:** Bulk goods handling

Conveyor industry (earth moving equipment)

Truck liners, hoppers, chutes,

Rail road car liners

Gypsum industry / Cement industry

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 - Blue # 589

# (UHMW – PE) Characteristics and standard values

Physical Properties	Method	SI Unit	SI Value
Density	ASTM D792	g/cc	> 0.93
	ISO 1183-1	g/cm³	> 0.93
Abrasion (Sand-Slurry-Test rel. to GUR 4120 = 100%)	ISO 15527	% (Average)	80 (± 5%)
Notched impact strength	ISO 11542-2	mJ/mm² kJ/m²	> 100
Tensile strength, yield	ASTM D638	psi	> 2500
	ISO 527-2	MPa	> 17
Break elongation	ASTM D638	%	>350
	ISO 527-2	%	>50
Creep properties under varying compressive stress : Creep <10%	max.	psi MPa	1150 8
Coefficient of friction, ASTM 1894 metal= Rz 2,5 µ, Pm= 2 N/mm <sup>2</sup> , V= 150 mm/min	Static	μ	0.15
	Dynamic	μ	0.09
Shore-hardness,	ASTM D2240	D	61
3-s-value 6mm plate	ISO 868 / DIN 53505	D	61
Water absorption		%	< 0.1 (Nil)
Flammability	UL 94		НВ
Thermal Properties			
Melt temperature	ASTM 3417 (DSC)	°F	275 – 278
	ISO 3146 (DSC)	°C	135 – 137
Permanent operation temp., max.		°F °C	176 80
Coefficient of linear expansion	ASTM D696	73 – 176 °F	≈ 1.1x10 <sup>-4</sup> /°F
	DIN 53752	23 – 80°C	≈ 2.0x10 <sup>-4</sup> /°C
Electrical Properties			
Surface resistivity	ASTM D257	Ohm	> 10 <sup>14</sup>
	IEC 93	Ω	> 10 <sup>14</sup>
Volume resistivity	ASTM D257	Ohm-cm	> 10 <sup>14</sup>
	IEC 93	Ω*cm	> 10 <sup>14</sup>

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