

TECHNICAL DATA - PE1000 NATURAL/BLACK
 HIGH MOLECULAR WEIGHT POLYETHYLENE

MATERIAL PROPERTIES	STANDARD	UNIT	VALUE	
			PE1000 virgin	PE1000 regen
MOLECULAR WEIGHT		g/mol	approx 0.5*10 ⁶	0.6*10 ⁶
DENSITY	ISO 1183	kg/m ³	950	930
WATER ABSORPTION (@23 °C Saturation)	ISO 62	%	<0.01	<0.01
MECHANICAL				
TENSILE STRESS AT YIELD	ISO 527	MPa	> 20	>15
ELONGATION AT BREAK	ISO 527	%	> 450	>200
TENSILE MODULUS	ISO 527	MPa	800	600
IMPACT STRENGTH (Charpy) @ 23 °C	ISO 179	(kJ/m ²)	no break	no break
NOTCHED IMPACT STRENGTH (Charpy) @ 23 °C	ISO 11542-2	(kJ/m ²)	> 170	>80
BALL INDENTATION HARDNESS	ISO2039-1	(N/mm ²)	30-35	30-35
SHORE HARDNESS	ISO 868	-	62-68	60-65
COEFFICIENT OF FRICTION	-	-	approx 0.25	approx 0.2
ABRASION (SAND SLURRY)	-	%	< 100	150
THERMAL				
MELTING POINT	ISO 3146	°C	135-138	135-138
SOFTENING POINT	ISO 306	°C	80	80
COEFFICIENT OF LINEAR THERMAL EXPANSION (23-80 °C)	ISO 11359	K ⁻¹	approx 2*10 ⁻⁴	approx 2*10 ⁻⁴
THERMAL CONDUCTIVITY	ISO 52612	W/m*K	approx 0.4	approx 0.4
MAX WORK TEMP	-	°C	80	80
MAX BRIEF TEMP	-	°C	90	90
MIN TEMP	-	°C	-200	-150
ELECTRICAL				
DISSIPATION FACTOR (100HZ)	IEC 60250	-	2.1* 10 ⁻⁴	
VOLUME RESISTIVITY	IEC 60093	Ohm*m	> 10 ¹²	> 10 ³
SURFACE RESISTIVITY	IEC 60093	Ohm	> 10 ¹²	> 10 ⁴
DIELECTRIC STRENGTH	IEC 60243	kV/mm	40	
PHYSIOLOGICAL				
FOOD CONFORMITY TO EU DIRECTIVE 2002/72/EC			YES	NO
FDA REG 21CFR177.1520			YES	NO
FDA REG 21CFR178.2010			YES	NO
FDA REG 21CFR178.3297			YES	NO

TECHNICAL DATA GIVEN ABOVE REFERS TO A 40mm THICK SHEET, THIS DATA MAY VARY SLIGHTLY DEPENDING ON MATERIAL THICKNESS.

ALL INFORMATION IS GIVEN IN GOOD FAITH AND WITHOUT WARRANTY

RM1407,Platinum Hotel,BaoMin No.1 Road,BaoAn District,ShenZhen City,China

Tel: +86 0755 26098435 Fax: +86 0755 82320135

Email: market@sinoeng.cn