



TECHNICAL DATA – DS YELLOW

MODIFIED UHMW POLYETHYLENE, DOUBLE SINTERED WITH IMPROVED FORMULATION FOR OPTIMUM WEAR RESISTANCE.

<b><i>MATERIAL PROPERTIES</i></b>	<b><i>STANDARD</i></b>	<b><i>UNIT</i></b>	<b><i>VALUE</i></b>
MOLECULAR WEIGHT		g/mol	approx 9*10 <sup>6</sup>
DENSITY	ISO 1183	kg/m <sup>3</sup>	925
WATER ABSORPTION (@23 °C Saturation)	ISO 62	%	<0.01
<b><i>MECHANICAL</i></b>			
TENSILE STRESS AT YIELD	ISO 527	MPa	> 17
ELONGATION AT BREAK	ISO 527	%	> 350
TENSILE MODULUS	ISO 527	MPa	700
IMPACT STRENGTH (Charpy) @ 23°C	ISO 179	(kJ/m <sup>2</sup> )	no break
NOTCHED IMPACT STRENGTH (Charpy) @ 23°C	ISO 11542-2	(kJ/m <sup>2</sup> )	> 120
BALL INDENTATION HARDNESS	ISO2039-1	(N/mm <sup>2</sup> )	30-35
SHORE HARDNESS	ISO 868	-	60-65
COEFFICIENT OF FRICTION	-	-	approx 0.15
ABRASION (SAND SLURRY)	-	%	80
<b><i>THERMAL</i></b>			
MELTING POINT	ISO 3146	°C	135-138
SOFTENING POINT	ISO 306	°C	80
COEFFICIENT OF LINEAR THERMAL EXPANSION (23-80°C)	ISO 11359	K <sup>-1</sup>	approx 2*10 <sup>-4</sup>
THERMAL CONDUCTIVITY	ISO 52612	W/m*K	approx 0.4
MAX WORK TEMP	-	°C	80
MAX BRIEF TEMP	-	°C	90
MIN TEMP	-	°C	200
<b><i>ELECTRICAL</i></b>			
DISSIPATION FACTOR (100HZ)	IEC 60250	-	3.9* 10 <sup>-4</sup>
VOLUME RESISTIVITY	IEC 60093	Ohm*m	> 10 <sup>12</sup>
SURFACE RESISTIVITY	IEC 60093	Ohm	> 10 <sup>12</sup>
DIELECTRIC STRENGTH	IEC 60243	kV/mm	45
<b><i>PHYSIOLOGICAL</i></b>			
FOOD CONFORMITY TO EU DIRECTIVE 2002/72/EC			YES
FDA REG 21CFR177.1520			YES
FDA REG 21CFR178.2010			N/A
FDA REG 21CFR178.3297			YES

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

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