

## Raw Material Polyester (PET)

General Properties	Test Method	Unit	Value
Density	ISO 1183	g/cm <sup>3</sup>	1.27
Water Absorption In Air 50% r.h.	ISO 62	%	0.2
Absorption 23-C In Water-Saturation	ISO 62:1999	%	0.5
Food Compliance	-	FDA/BfR	YES
UV Stability	-	-	-
Mechanical Properties			
Tensile Strength At Yield At Break	ISO 527-1/2:1993	N/mm <sup>2</sup>	53
Elongation at Break	ISO 527-1/2:1993	%	200
Tensile Modulus Of Elasticity	ISO 527-1/2:1993	N/mm <sup>2</sup>	2200
Impact Strength Charpy 7.5 J	ISO 604:2002	KJ/mm <sup>2</sup>	NO BREAK
Notched Impact Strenght Charpy	ISO 180:2000	KJ/mm <sup>2</sup>	10
Ball Indentation Hardness	-	N/mm <sup>2</sup>	-
Rockwell Hardness (Dry)	ISO 868:2003	Scale R	115
Coefficient Of Friction To Steel	-	-	-
Thermal Properties			
Melting Temperature	ISO 3146	°C	-
Thermal Conductivity	ISO 8301:1991	W/(km)	-
Deformation at temperature HDT	ISO 75	°C	130
Linear Expansion Coefficient 23-60Degrees	ISO 11359-2:1999	10 <sup>-6</sup> K <sup>-1</sup>	68
Service Temperature, Long Term	Average	°C	-
Service Temperature, Short Term (MAX)	Average	°C	-
Operating Temperature Continuously	Average	°C	115
Flammability	UL 94 (3-6mm thickness)	-	B1
Electrical Properties			
Dielectric Constant	ISO 250	-	3.2
Dissipation Factor Tan Δ at 1 MHz	ISO 250	-	0.01
Volume Resistivity	ISO 93	Ωcm	1 x 10 <sup>16</sup>
Dielectric Strength	ISO 243	KV/mm	60

### Applications:

- High Tolerance Gears
- Precision Guides & Rails
- Conveyor Rollers
- Distribution Valves

### Characteristics:

- Excellent Mechanical Properties
- Superior Wear Resistance
- Excellent Dimensional Stability
- Low Co-efficient Of Friction



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