

PET ZX

Material Information



PET ZX

Product full identity:

Polyethylene Terephthalate (PETP) ZX

PET ZX is a light grey Polyethylene Terephthalate (PET) that includes a solid lubricant. It provides improved sliding properties, reduced sliding friction coefficient and can withstand higher loads making this material perfect for the manufacture of mechanical precision parts.

Properties

- Excellent dimensional stability
- Very good creep resistance
- High strength, stiffness and hardness
- Wide temperature range (+115 to -20°C)
- Low coefficient of friction
- Food contact approved

Applications

- Engineering
- Medical parts
- Conveyor components
- Precision parts

Forms



Solid Rod



Sheet

PET ZX

Technical Properties

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	ISO 1183	1.45
Water absorption until saturation at 23°C	%	ISO 62	0.47
Maximum service temp. Upper temp limit – short term	°C	-	160
Maximum service temp. Upper temp limit – long term	°C	-	115
Lower temp limit	°C	-	-20
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	-	-
Elongation at yield	%	ISO 572-2	7
Tensile strength at break	MPa	ISO 572-2	76
Unnotched impact strength	kJ/m ²	ISO 179-1/1eU	>30
Notch impact strength	kJ/m ²	ISO 179-1/1eA	2.50
Ball indentation / Rockwell hardness	MPa	ISO 2039-1	160 / M94
Shore-D		-	-
Flexural modulus of elasticity	MPa	-	-
Tensile modulus of elasticity	MPa	ISO 527-2	3450
Thermal	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	-	-
Heat deflection temperature HDT/B	°C	ISO 75-2	75
Coefficient of linear thermal expansion 23 – 100°C	m/(m.K)	ISO 11359	0.65
Thermal conductivity at 23°C	W/mK	DIN 52612	0.29
Electrical	Unit	Test Method	Result
Volume resistivity	Ω x m	IEC 60093	>10 ¹³
Surface resistivity	Ω	IEC 60093	>10 ¹⁴
Insulation resistivity	Ω . cm	-	-
Dielectric constant at 1MHz		IEC 60250	3.20
Dielectric loss factor at 1MHz		IEC 60250	0.014
Dielectric strength	kV/mm	IEC 60243-1	21
Comparative tracking index (CTI)		IEC 60112	600
Additional Data	Unit	Test Method	Result
Bondability		-	-
Food compliance – FDA		FDA	Yes
Food compliance – EU		EU	Yes
Antistatic		-	-
Flammability	Unit	Test Method	Result
Fire performance		UL 94	HB
Optical	Unit	Test Method	Result
N/A	N/A	N/A	N/A

All information provided in this Product Datasheet is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.