

A-PET

Material Information



A-PET

Product full identity:

Amorphous Polyethylene Terephthalate

A-PET is best suited for flat and cold bending applications. Suitable for use in the food industry, it has excellent impact resistance in temperatures down to -20°C with very high chemical resistance properties and are suitable for printing with UV curing inks

Properties

- High impact resistance
- Good chemical resistance
- Good temperature resistance (+65°C to -40°C)
- Food contact approved

Applications

- Display shelving and racking systems
- Cold food storage
- Glazing panels
- Vending machine screens

Forms



Sheet

A-PET

Technical Properties

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	ISO 1183-1	1.33
Water absorption until saturation at 23°C	%	ISO 62-1	0.5
Maximum service temp. Upper temp limit – short term	°C	-	70
Maximum service temp. Upper temp limit – long term	°C	-	65
Lower temp limit	°C	-	-20
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	ISO 527-2	55
Elongation at yield	%	ISO 527-2	>25
Tensile strength at break	MPa	-	-
Unnotched impact strength	kJ/m ²	ISO 179-1/1eU	No break
Notch impact strength	kJ/m ²	ISO 179-1/1eA	4
Ball indentation / Rockwell hardness	MPa	-	-
Shore-D		ISO 868	50
Flexural modulus of elasticity	MPa	ISO 178	2400
Tensile modulus of elasticity	MPa	ISO 527-2	2400
Thermal	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	ISO 306	70
Heat deflection temperature HDT/B	°C	ISO 75-2	72/68
Coefficient of linear thermal expansion 23 – 100°C	m/(m.K)	ISO 11359-2	0.05
Thermal conductivity at 23°C	W/mK	ISO 22007-1	0.20
Electrical	Unit	Test Method	Result
Volume resistivity	Ω x m	IEC 62631-3-1	10 ¹⁵
Surface resistivity	Ω	IEC 62631-3-2	10 ¹⁶
Insulation resistivity	Ω . cm	-	-
Dielectric constant at 1MHz		IEC 60250	3.4
Dielectric loss factor at 1MHz		-	-
Dielectric strength	kV/mm	IEC 60243-1	17
Comparative tracking index (CTI)		-	-
Additional Data	Unit	Test Method	Result
Bondability		-	-
Food compliance – FDA		FDA	No
Food compliance – EU		EU 10/2011	Yes
Antistatic		-	-
Flammability	Unit	Test Method	Result
Fire performance		EN 13501-1	B - s1, d0
Optical	Unit	Test Method	Result
Light transmission	%	ISO 13468-1	88
Refractive index	-	ISO 489	1.58
Haze	%	ISO 14782	<1
Solar energy transmittance g - value (3mm)	%	DIN EN 410	82

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.