

# TYPICAL PHYSICAL PROPERTIES

## Polyester

Property	Test Meth- od	Conditions	Units	Value	
				APET	PETG
<b>Physical</b>					
Relative Density	ISO 1183		g/cm <sup>3</sup>	1.33	1.27
Water Absorption	ISO 62		%	0.15	0.15
<b>Mechanical</b>					
Tensile Strength at Yield	ISO 527		MPa	53.5	51.5
Tensile Strength at Break					
Elongation at Yield					
Elongation at Break	ISO 527		MPa	> 100	>100
Tensile Modulus of Elasticity	ISO 527			+2600	+2200
Flexural Modulus			MPa	2300	2100
Flexural Strength at Yield					
Izod Impact Strength	ISO 180	notched unnotched	kJ/m <sup>2</sup>	3.9 no burst	9.0 no burst
Charpy Impact Strength					
Impact Falling Weight					
Rockwell Hardness	DIN 2039		R Scale	114	115
<b>Thermal</b>					
Service Temperature			°C	-20 to 60	-40 to 60
Heat Distortion Temperature	ISO 75	Load: 1.82MPa	°C	67	68
Vicat Softening Temperature	ISO 306	Load: 1kg	°C	78	82
Coefficient of Thermal Expansion			mm/m°C	0.06	0.06
Thermal Conductivity					
Specific Heat Capacity	DSC		J/gC°	1.13	1.13
<b>Optical</b>					
Light Transmission	ASTM D-1003	3mm sheet	%	89	90
Refractive Index				N/A	N/A
Yellowness Index				N/A	N/A
Haze	ASTM D-1003		%	1.9	>1
<b>Electrical</b>					
Dielectric Strength	ASTM D-149	500V/s	kV/mm	18	16
Surface Resistivity	ASTM D-257		Ωxcm	1*E15	1*E15

Other physical properties and values available on request.

APET		PETG	
Standard	Classification	Standard	Classification
BS 476 Part 7	Class 1Y	BS 476 Part 7	Class 1Y
UL 94	V2/HB	UL 94	HB
DIN 4102-1	B1	DIN 4102-1	B1
DIN 5510-2	S4/SR2/ST2	DIN 5510-2	S4/SR2/ST2
CSE RF-2-75A/ RF3-77	Class 1	CSE RF-2-75A/ RF3-77	Class 1
NF F 16-101 & 102	M2, F1	NF F 16-101 & 102	M2, F1