

Product Texts

Common features of Rynite® thermoplastic polyester include mechanical and physical properties such as excellent balance of strength and stiffness, dimensional stability, creep resistance, heat resistance, high surface gloss and good inherent electrical properties at elevated temperature. It can be processed over a broad temperature range and has excellent flow properties.

Rynite® thermoplastic polyester resins are typically used in demanding applications in the automotive, electrical and electronics, appliances where they successfully replace metals and thermosets, as well as other thermoplastic polymers.

Rynite® 545 BK504 is a 45% glass reinforced modified polyethylene terephthalate resin.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.2	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.8	%	ISO 294-4, 2577
^[C] Ejection temperature	170	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	15500	MPa	ISO 527
^[C] Stress at break	175	MPa	ISO 527
^[C] Strain at break	1.9	%	ISO 527
^[C] Charpy impact strength, +23°C	60	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	11	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	249	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	90	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	230	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	17	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	85	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
^[C] Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.5	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4.2	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	214	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	136	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	1E15	Ohm	IEC 62631-3-2
^[C] Electric strength	32	kV/mm	IEC 60243-1
^[C] Comparative tracking index	225	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Density	1700	kg/m ³	ISO 1183

[C]: CAMPUS

Rynite® 545 BK504

PET-GF45

Celanese

Material specific properties	Value	Unit	Test Standard
ISO Data			
^[C] Viscosity number	55	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Regional Availability

North America, Europe, Asia Pacific, South and Central America

Delivery form

Black