

**Technical Data**

**Product Description**

45% Glass/Mineral Reinforced, Flame Retardant, Polyethylene Terephthalate

**General**

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E41938-257742</a>
Search for UL Yellow Card	• <a href="#">Celanese Corporation</a> • <a href="#">Rynite®</a>
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber\Mineral, 45% Filler by Weight
Additive	• Flame Retardant
Features	• Flame Retardant
RoHS Compliance	• Contact Manufacturer
Part Marking Code (ISO 11469)	• >PET-(MD+GF)45FR(17)<
Resin ID (ISO 1043)	• PET-(MD+GF)45FR(17)

Physical	Nominal Value Unit	Test Method
Density	1.85 g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage		ISO 294-4
Across Flow	0.90 %	
Flow	0.50 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	13000 MPa	ISO 527-1
Tensile Stress (Break)	92.0 MPa	ISO 527-2/5
Tensile Strain (Break)	1.2 %	ISO 527-2/5
Flexural Modulus	12000 MPa	ISO 178
Flexural Stress	140 MPa	ISO 178
Poisson's Ratio	0.33	

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-40°C	3.0 kJ/m <sup>2</sup>	
23°C	4.0 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength (23°C)	20 kJ/m <sup>2</sup>	ISO 179/1eU
Notched Izod Impact Strength (23°C)	4.0 kJ/m <sup>2</sup>	ISO 180/1A

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed	240 °C	ISO 75-2/B
1.8 MPa, Unannealed	200 °C	ISO 75-2/A
Melting Temperature <sup>4</sup>	250 °C	ISO 11357-3



Flammability	Nominal Value Unit	Test Method
Burning Rate <sup>5</sup> (1.00 mm)	< 80 mm/min	ISO 3795
Flame Rating		UL 94
0.8 mm	V-0	IEC 60695-11-10, -20
1.5 mm	V-0 5VA	
Glow Wire Ignition Temperature		IEC 60695-2-13
0.75 mm	825 °C	
1.5 mm	825 °C	
3.0 mm	925 °C	
FMVSS Flammability	B	FMVSS 302

Fill Analysis	Nominal Value Unit
Ejection Temperature	170 °C

Injection	Nominal Value Unit
Drying Temperature	120 °C
Drying Time - Desiccant Dryer	4.0 to 6.0 hr
Suggested Max Moisture	< 0.020 %
Processing (Melt) Temp	270 to 290 °C
Melt Temperature, Optimum	280 °C
Mold Temperature	100 to 120 °C
Mold Temperature, Optimum	110 °C
Holding Pressure	> 80.0 MPa
Back Pressure	As low as possible
Drying Recommended	yes
Hold Pressure Time	4.00 s/mm
Screw Tangential Speed	< 12 m/min

**Notes**

- <sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- <sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.
- <sup>3</sup> Typical properties: these are not to be construed as specifications.
- <sup>4</sup> 10°C/min
- <sup>5</sup> FMVSS 302

