



Impet® 340R

Celanese Corporation - Polyethylene Terephthalate

Tuesday, November 5, 2019

General Information

Product Description

Impet 340R is a 45% glass-reinforced injection moldable polyester made with post consumer recycled PET. It provides an excellent combination of strength, stiffness, and high temperature resistance.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 45% Filler by Weight		
Recycled Content	• Yes		
Features	• Good Stiffness	• Good Strength	• High Heat Resistance
RoHS Compliance	• Contact Manufacturer		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.73	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (280°C/2.16 kg)	4.0	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.60	%	
Flow	0.20	%	
Elongational Stress F - 150/10	22	psi	ISO 11542-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.44E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	25200	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.7	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	2.23E+6	psi	ISO 178
Flexural Stress (73°F)	37600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.3	ft-lb/in ²	
73°F	5.2	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	10	ft-lb/in ²	
73°F	11	ft-lb/in ²	
Notched Izod Impact Strength (73°F)	4.5	ft-lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	121		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	464	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	444	°F	ISO 75-2/A
Glass Transition Temperature ²	163	°F	ISO 11357-2
Melting Temperature ²	471	°F	ISO 11357-3
CLTE - Flow	7.8E-6	in/in/°F	ISO 11359-2

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Thermal	Nominal Value	Unit	Test Method
CLTE - Transverse	4.6E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Arc Resistance	80.0	sec	Internal Method
Comparative Tracking Index	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.03 in)	HB		UL 94
Oxygen Index	22	%	ISO 4589-2

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	266 to 284	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.010	%
Hopper Temperature	68 to 122	°F
Rear Temperature	491 to 509	°F
Middle Temperature	500 to 527	°F
Front Temperature	500 to 527	°F
Nozzle Temperature	518 to 554	°F
Processing (Melt) Temp	500 to 554	°F
Mold Temperature	230 to 250	°F
Injection Rate	Moderate-Fast	

Injection Notes

Feeding zone temperature: 255 to 265°C
 Zone4 temperature: 265 to 280°C
 Hot runner temperature: 260 to 290°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min