



Enester® EM-180-GR5-J1-000

Ravago Manufacturing Europe - Polybutylene Terephthalate

General Information

Product Description

30% Glass Fiber Reinforced, Polybutylene Terephthalate Compound

Key Features : ENESTER EM-180-GR5-J1-000 is heat stabilized and lubricated PBT compound with good strength and stiffness properties

Process Method: Injection moulding

Uses: Recommended for general purpose applications

General

Material Status	• Commercial: Active		
Availability	• Europe		
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• General Purpose	• Good Strength	• Lubricated
	• Good Stiffness	• Heat Stabilized	
Uses	• General Purpose		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.51	g/cm ³	ISO 1183/A
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10500	MPa	ISO 527-1
Tensile Stress (Break)	135	MPa	ISO 527-2
Tensile Strain (Break)	2.5	%	ISO 527-2
Flexural Modulus	8000	MPa	ISO 178
Flexural Stress	190	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
--	9.0	kJ/m ²	ISO 179/1A
-30°C	8.0	kJ/m ²	ISO 179/1
Charpy Unnotched Impact Strength			ISO 179/1U
--	55	kJ/m ²	
-30°C	68	kJ/m ²	
Notched Izod Impact Strength (23°C)	9.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength	51	kJ/m ²	ISO 180/1U

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	220	°C	ISO 75-2/B
Deflection Temperature Under Load 1.8 MPa, Unannealed	205	°C	ISO 75-2/A
Vicat Softening Temperature --	215	°C	ISO 306/B50
--	220	°C	ISO 306/A120

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.8 mm		HB	
1.6 mm		HB	
3.2 mm		HB	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	120 to 140	°C
Drying Time	2.0 to 4.0	hr
Rear Temperature	230 to 245	°C
Middle Temperature	235 to 250	°C
Front Temperature	240 to 260	°C
Nozzle Temperature	240 to 260	°C
Mold Temperature	40 to 80	°C

Notes

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