



# 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 Stiffness	• Good Strength • Heat Stabilized	• Lubricated
Uses	• General Purpose		
Processing Method	• Injection Molding		

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.51	g/cm <sup>3</sup>	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 <sup>2</sup>	ISO 179/1A
-30°C	8.0	kJ/m <sup>2</sup>	ISO 179/1
Charpy Unnotched Impact Strength			ISO 179/1U
--	55	kJ/m <sup>2</sup>	
-30°C	68	kJ/m <sup>2</sup>	
Notched Izod Impact Strength (23°C)	9.0	kJ/m <sup>2</sup>	ISO 180/1A
Unnotched Izod Impact Strength	51	kJ/m <sup>2</sup>	ISO 180/1U

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<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
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
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating			UL 94
0.8 mm		HB	
1.6 mm		HB	
3.2 mm		HB	

**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
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**

<sup>1</sup> Typical properties: these are not to be construed as specifications.