

**Product Texts**

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.

Flammability at thickness h (0.81 HB mm)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	<b>0.2</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	<b>0.6</b>	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>16800</b>	MPa	ISO 527
<sup>[C]</sup> Stress at break	<b>175</b>	MPa	ISO 527
<sup>[C]</sup> Strain at break	<b>1.7</b>	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	<b>24</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	<b>21</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>11</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>9</b>	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	<b>244</b>	°C	ISO 11357-1/-3
<sup>[C]</sup> Glass transition temperature, 10°C/min	<b>73</b>	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	<b>229</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	<b>240</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>14</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>83</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at thickness h	<b>HB</b>	class	IEC 60695-11-10
Thickness tested	<b>0.8</b>	mm	-
<sup>[C]</sup> Oxygen index	<b>22</b>	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Volume resistivity	<b>&gt;1E13</b>	Ohm*m	IEC 62631-3-1

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Density	<b>1730</b>	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	<b>121</b>	°C	-
Pre-drying - Time	<b>4</b>	h	-
Processing humidity	<b>≤0.01</b>	%	-
Melt temperature	<b>270 - 300</b>	°C	-
Mold temperature	<b>110 - 120</b>	°C	-

**Characteristics**

**Processing**

Injection Molding

**Additives**

Lubricants

**Delivery form**

Pellets

**Regional Availability**

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

**Other text information****Injection molding**

To avoid hydrolytic degradation during processing, IMPET resins have to be dried to a moisture level equal to or less than 0.01%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-30°F (-34°C) at 275°F (121°C) for 4 hours.

Rear Temperature 500-520(260-270) deg F (deg C)

Center Temperature 520-530(270-275) deg F (deg C)

Front Temperature 530-540(275-280) deg F (deg C)

Nozzle Temperature 530-550(275-290) deg F (deg C)

Melt Temperature 520-570(270-300) deg F (deg C)

Mold Temperature 230-250(110-120) deg F (deg C)

Back Pressure 0-25 psi

Screw Speed 50-75 rpm

Injection Speed Medium/Fast

Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided, in particular for flame retardant grades. Up to 25% clean and dry regrind may be used.