



HiPrene® M540

GS Caltex - Polypropylene Impact Copolymer

General Information

Product Description

HiPrene® M540 is a impact modified polypropylene suitable for injection molding. This material has excellent impact resistance. Because of it's good impact resistance, it is suitable for home appliance components and battery cases.

Features:

- Excellent impact resistance

Typical Customer Applications:

- Home Appliance Component
- Battery Case

General

Additive	• Impact Modifier		
Features	• High Impact Resistance	• Impact Copolymer	• Impact Modified
Uses	• Appliance Components	• Battery Cases	
Processing Method	• Injection Molding		

Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity			
--	0.902	0.900 g/cm ³	ASTM D792
--	0.900 g/cm ³	0.900 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	9.0 g/10 min	9.0 g/10 min	ASTM D1238 ISO 1133
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength			
Yield	4060 psi	28.0 MPa	ASTM D638
Yield	3770 psi	26.0 MPa	ISO 527-2
Tensile Elongation			
Break	> 250 %	> 250 %	ASTM D638
Break, 73°F (23°C)	> 250 %	> 250 %	ISO 527-2
Flexural Modulus			
--	189000 psi	1300 MPa	ASTM D790
73°F (23°C)	181000 psi	1250 MPa	ISO 178

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Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			
14°F (-10°C)	0.66 ft·lb/in	35 J/m	ASTM D256
73°F (23°C)	1.5 ft·lb/in	80 J/m	ASTM D256
14°F (-10°C)	1.4 ft·lb/in ²	3.0 kJ/m ²	ISO 180
73°F (23°C)	3.3 ft·lb/in ²	7.0 kJ/m ²	ISO 180

Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (R-Scale)	90	90	ASTM D785 ISO 2039-2

Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	212 °F	100 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	185 °F	85.0 °C	ISO 75-2/B

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Rear Temperature	392 to 428 °F	200 to 220 °C
Middle Temperature	410 to 446 °F	210 to 230 °C
Front Temperature	428 to 464 °F	220 to 240 °C
Nozzle Temperature	428 to 464 °F	220 to 240 °C
Mold Temperature	104 to 122 °F	40 to 50 °C
Injection Pressure	2900 to 5800 psi	20.0 to 40.0 MPa
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa