



# HiPrene® M580

## GS Caltex - Polypropylene Impact Copolymer

### General Information

#### Product Description

HiPrene® M580 is a high melt flow, impact modified polypropylene suitable for injection molding. This material has excellent impact resistance. Because of its good impact resistance and flowability, it is suitable for home appliance components and battery cases.

#### Features:

- Excellent Impact Resistance
- Excellent Flowability

#### Typical Customer Applications:

- Home Appliance Component
- Battery Case

#### General

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

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity			
--	0.902	0.900 g/cm <sup>3</sup>	ASTM D792
--	0.900 g/cm <sup>3</sup>	0.900 g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	60 g/10 min	60 g/10 min	ASTM D1238 ISO 1133
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength			
Yield	4350 psi	30.0 MPa	ASTM D638
Yield	4060 psi	28.0 MPa	ISO 527-2
Tensile Elongation			
Break	> 150 %	> 150 %	ASTM D638
Break, 73°F (23°C)	> 150 %	> 150 %	ISO 527-2
Flexural Modulus			
--	225000 psi	1550 MPa	ASTM D790
73°F (23°C)	210000 psi	1450 MPa	ISO 178

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Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			
14°F (-10°C)	0.47 ft·lb/in	25 J/m	ASTM D256
73°F (23°C)	0.94 ft·lb/in	50 J/m	ASTM D256
14°F (-10°C)	0.95 ft·lb/in <sup>2</sup>	2.0 kJ/m <sup>2</sup>	ISO 180
73°F (23°C)	2.1 ft·lb/in <sup>2</sup>	4.5 kJ/m <sup>2</sup>	ISO 180

Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (R-Scale)	95	95	ASTM D785 ISO 2039-2

Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	257 °F	125 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	221 °F	105 °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