HiPrene® M570

GS Caltex - Polypropylene Impact Copolymer

General Information

Product Description

HiPrene® M570 is a high melt flow, impact modified polypropylene suitable for injection molding. This material has excellent impact resistance. Because of it's 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 [1]

Physical	Typical Value (English)		Typical Value (SI)		Test Method
Density / Specific Gravity					
--	0.902		0.900	g/cm³	ASTM D792
--	0.900	g/cm³	0.900	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	45	g/10 min	45	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)	218000	psi	1500	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)	1.0	ft·lb/in	55	J/m	ASTM D256
14°F (-10°C)	1.2	ft·lb/in²	2.5	kJ/m²	ISO 180
73°F (23°C)	2.4	ft·lb/in²	5.0	kJ/m²	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