CERTENE™ SIM-080

High Impact Polystyrene

Muehlstein

Message:

SIM-080 is a certified prime grade developed for INJECTION MOLDING applications requiring high Strength coupled with superior Gloss properties. SIM-080 offers excellent processability, exceptional consistency of melt viscosity that combined reduce injection pressure, shorten cycle time and minimize internal molding stresses, resulting in moldings free of Warpage and outstanding Impact strength. SIM-080 typical applications include appliance housings, housewares, furniture components, fan grids, scale models, toys, audio and video cassette shells, structural foam moldings, and blends with Crystal Polystyrene for improvement of mechanical properties. SIM-080 complies with FDA regulation 21CFR 177.1640 and with most international regulations concerning the use of Polystyrene in contact with food articles.

General Information			
Features	Fast Molding Cycle		
	Food Contact Acceptable		
	Good Processability		
	High Gloss		
	High Impact Resistance		
	High Strength		
	Low Warpage		
Uses	Appliance Components		
	Audio Tapes		
	Blending		
	Electrical Parts		
	Furniture		
	Household Goods		
	Housings		
	Structural Foam		
	Toys		
	Video Cassettes		
Agency Ratings	FDA 21 CFR 177.1640		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.05	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	8.0	g/10 min	ASTM D1238
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness [1] (R-Scale)	60		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (Injection Molded)	2280	MPa	ASTM D638
Tensile Strength [2] (Yield, Injection Molded)	20.7	MPa	ASTM D638

Tensile Elongation [3] (Break, Injection Molded)	50	%	ASTM D638
Flexural Modulus - 1% Secant [4] (Injection Molded)	2340	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm, Injection Molded)	130	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, Injection Molded)	91.0	°C	ASTM D648
Vicat Softening Temperature [5]	96.0	°C	ASTM D1525

NOTE	
1.	Injection molded
2.	5.0 mm/min
3.	5.0 mm/min
4.	1.3 mm/min
5.	Injection molded

Recommended distributors for this material

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