# CERTENE™ SGM-085

## General Purpose Polystyrene

#### Muehlstein

## Message:

SGM-085 is a certified prime grade specially developed for INJECTION MOLDING general purpose applications. SGM-085 is an easy processing general purpose resin that offers good balance of processability and high heat properties. SGM-085 applications include thin-walled containers, decorative lighting, cutlery, audio and video cassette boxes, and blends with High Impact Polystyrene for improvement of flexural and toughness properties. SGM-085 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	Food Contact Acceptable		
	Good Flexibility		
	Good Processability		
	Good Toughness		
	High Heat Resistance		
Uses	Audio Tapes		
	Blending		
	Containers		
	Lighting Fixtures		
	Thin-walled Containers		
	Video Cassettes		
Agency Ratings	FDA 21 CFR 177.1640		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	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 <sup>1</sup> (M-Scale)	75		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	2960	MPa	ASTM D638
Tensile Strength <sup>2</sup> (Yield, Injection Molded)	44.8	MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break, Injection Molded)	2.0	%	ASTM D638
Flexural Modulus - 1% Secant <sup>4</sup> (Injection Molded)	3030	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm, Injection Molded)	16	J/m	ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, Injection Molded)	101	°C	ASTM D648
Vicat Softening Temperature <sup>5</sup>	105	°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		

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#### Recommended distributors for this material

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