CERTENE™ SGM-025

General Purpose Polystyrene

Muehlstein

Message:

SGM-025 is a certified prime grade High Molecular Weight specially developed for both INJECTION MOLDING and EXTRUSION applications requiring high heat resistance, high tensile strength, and high stiffness. SGM-025 offers good-flow processability, good dimensional stability and excellent clarity of molded articles. SGM-025 applications include foamed sheet extrusion for packaging e.g. egg trays, sheet extrusion for shower cabin panels, dinnerware, oriented polystyrene (OPS) for cookie and cake trays, thin-walled containers, and consumer electronics. SGM-025 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	Good Dimensional Stability
	Good Flow
	Good Processability
	High Clarity
	High Heat Resistance
	High Molecular Weight
	High Stiffness
	High Tensile Strength
Uses	Consumer Applications
	Containers
	Foam
	Sheet
	Support Trays
	Thin-walled Containers
Agency Ratings	FDA 21 CFR 177.1640
Forms	Pellets
Processing Method	Extrusion
	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)	2.5	g/10 min	ASTM D1238
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness [1] (R-Scale)	105		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (Injection Molded)	3310	MPa	ASTM D638
Tensile Strength [2] (Yield, Injection Molded)	53.8	MPa	ASTM D638
Tensile Elongation [3] (Break, Injection Molded)	1.3	%	ASTM D638

Flexural Modulus - 1% Secant [4] (Injection Molded)	3600	MPa	ASTM D790
Flexural Strength (23°C, Injection Molded)	179	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm, Injection Molded)	11	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, Injection Molded)	98.0	°C	ASTM D648
Vicat Softening Temperature [5]	107	°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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