

GON535M

General Purpose Polystyrene (GPPS)

**TECHNICAL
DATASHEET**

DESCRIPTION

GON535M is a highly transparent GPPS grade. It gives excellent mechanical and heat resistance properties while providing with easy process-ability and short cycle time.

FEATURES

- High impact strength
- Good mechanical and heat resistance properties
- Easy Process-ability
- High transparency
- Bluish-tint

APPLICATIONS

- Transparent parts for refrigerators such as fruit and vegetable crispers, chillers, flaps, trays etc.
- Injection molded articles
- Replacement of SAN and PMMA in several application like water filter containers, pen parts etc.
- Household applications such as crystal-ware, kitchen containers etc.
- Packaging applications such as chocolate boxes, display cabinets, etc.
- Other transparent articles in injection Molding applications

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm ³ /10 min	3
Mechanical Properties			
Charpy Notched Impact Strength, 23°C	ISO 179/1eA	KJ/m ²	3
Charpy Unnotched Impact Strength, 23°C	ISO 179/1eU	KJ/m ²	15
Tensile Stress at Yield, 23°C	ISO 527	MPa	53
Tensile Strain at Break, 23°C	ISO 527	%	3

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Property, Test Condition	Standard	Unit	Values
Flexural Strength, 23°C	ISO 178	MPa	95
Flexural Modulus, 23°C	ISO 178	MPa	3300
Rockwell Hardness, 23°C	ISO 2039-2		130
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	92
Heat Deflection Temperature B;(annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	93
Electrical Property			
Dielectric Strength, Short Time, 1.5 mm	IEC 60243-1	kV/mm	135
Relative Permittivity (100 Hz)	IEC 62631-2-1	-	2.5
Relative Permittivity (1 MHz)	IEC 62631-2-1	-	2.5
Volume Resistivity	IEC 62631-3-1	Ohm*m	>10 ¹⁶
Surface Resistivity	IEC 62631-3-1	Ohm	>10 ¹⁴
Optical Properties			
Haze	ASTM D 1003	%	2
Light Transmittance	ASTM D 1003	%	90
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.3-0.6
Melt Temperature Range	ISO 294	°C	180-260

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Property, Test Condition	Standard	Unit	Values
Mold Temperature Range	ISO 294	°C	10-60
Injection Velocity	ISO 294	mm/s	200
Other Properties			
Density	ISO 1183	Kg/m ³	1045

Typical values for uncolored products

Please note that all processing data stated are only indicative and may vary depending on the individual processing complexities. Please consult our local sales or technical representatives for details.

SUPPLY FORM

GON535M should be kept in its original containers in cool, dry place. Avoid direct exposure to sunlight. GON535M can be stored in silos.

PROCESSING

GON535M can be injection molded at temperatures between 180°C and 280°C. Recommended mold temperatures are between 10 and 60°C. Extrusion melt temperature should not exceed 260°C.

DISCLAIMER

The above mentioned data are accurate to the best of our knowledge. They are based upon reputable labs and industry standard Testing methods. These are only typical values and actual product specification may deviate at industrial range. Therefore, no data in this technical data sheet shall constitute a warranty or representation regarding product features, fitness of the product for a specific purpose or application or its processability. Zhejiang Polymer.1 disclaims all liability in connection therewith. The customer himself is required to verify whether or not the product is suitable for the further processing or application intended and whether or not the product complies with the relevant statutory requirements. Unless explicitly and individually otherwise agreed in writing, Zhejiang Polymer.1's sole and exclusive liability with respect to its products is set forth in Zhejiang Polymer.1's General Terms and Conditions for Sale.