INEOS STYROLUTION

Zylar 670

Methyl Methacrylate Butadiene Styrene (MBS)

TECHNICAL DATASHEET

DESCRIPTION

Zylar® 670 is an impact modified styrene acrylic copolymer that provides practical toughness, excellent clarity and superior processing characteristics for demanding injection molded applications.

FEATURES

- Excellent clarity
- Exceptional performance in drop tests
- Low density
- Ease of processing
- Low moisture absorption
- Gamma & ETO sterilizable

APPLICATIONS

- Appliances and consumer goods
- Medical devices
- Toys
- Office accessories
- Industrial housings and covers
- Reusable drinkware

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm³/10 min	6
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	55
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	6
Izod Unnotched Impact Strength	ISO 180	kJ/m²	140
Charpy Notched Impact Strength, 23° C	ISO 179	kJ/m²	4
Charpy Unnotched, 23 °C	ISO 179	kJ/m²	130
Tensile Stress at Yield, 23 °C	ISO 527	MPa	28
Tensile Strain at Break, 23 °C	ISO 527	%	42
Tensile Modulus	ISO 527	MPa	1800
Flexural Strength, 23 °C	ISO 178	MPa	41
Flexural Modulus, 23 °C	ISO 178	MPa	1800
Hardness, Rockwell		M scale	70
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	72

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Property, Test Condition	Standard	Unit	Values
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°C	100
Electrical Properties			
Dielectric Constant (100 Hz)	IEC 60250	-	2.5
Volume Resistivity	IEC 60093	Ohm*m	>1E13
Surface Resistivity	IEC 60093	Ohm	>1E14
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.56
Light Transmission at 550 nm	ASTM D 1003	%	90
Haze	ASTM D 1003	%	2
Other Properties			
Density	ISO 1183	kg/m³	1050
Water Absorption, Saturated at 23 °C	ISO 62	%	0.1
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.05
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.2 to 0.6
Melt Temperature Range	ISO 294	°C	200 - 240
Mold Temperature Range	ISO 294	°C	30 - 55
Rear Temperature Range		°C	180 - 210
Middle Temperature Range		°C	185 - 220
Front Temperature Range		°C	190 - 225
Injection Velocity	ISO 294	mm/s	Moderate to Fast
Drying Temperature		°C	65
Drying Time		h	2
Max Service Temperature		°C	250