

Zylar 650

Methyl Methacrylate Butadiene Styrene (MBS)

TECHNICAL DATASHEET

DESCRIPTION

Zylar® 650 is an impact modified styrene acrylic copolymer that provides a balance of clarity and toughness, with outstanding strength and rigidity. Zylar® 650 also has superior processing characteristics for demanding injection molded applications.

FEATURES

- Good balance of toughness, stiffness, and clarity
- Low density
- Ease of processing
- Gamma & ETO sterilizable
- Meets USP XXIII specifications for Class VI plastics
- UL 94 HB approved

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 Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	4
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	3
Impact Strength, Gardner	ASTM D 5420	in-lbs	150
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	3800
Tensile Modulus	ASTM D 638	psi x 10 ³	310
Elongation, Failure	ASTM D 638	%	40
Flexural Strength, 23 °C	ASTM D 790		7000
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	280
Hardness, Rockwell	ASTM D 785	R scale	84
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°F	210
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	-	°F	197
Optical Properties			
Refractive Index, Sodium D Line	ASTM D 542	-	1.57

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Property, Test Condition	Standard	Unit	Values
Light Transmission at 550 nm	ASTM D 1003	%	90
Haze	ASTM D 1003	%	2
Other Properties			
Density	ASTM D 792	lb/in ³	1.04
Water Absorption, Saturated at 23 °C	ASTM D 570	%	0.1
Processing			
Melt Temperature Range	-	°F	400 - 460
Mold Temperature Range	-	°F	80 - 130
Rear Temperature Range	-	°F	355 - 415
Middle Temperature Range	-	°F	365 - 425
Front Temperature Range	-	°F	375 - 435
Drying Temperature	-	°F	150
Drying Time	-	h	2
Max Service Temperature	-	°F	480