

Zylar 631

Methyl Methacrylate Butadiene Styrene (MBS)

TECHNICAL
DATASHEET

DESCRIPTION

Zylar® 631 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
- 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 Volume Rate, 200 °C/5 kg	ISO 1133	cm³/10 min	5
Mechanical Properties			
Tensile Stress at Yield, 23 °C	ISO 527	MPa	36
Tensile Modulus	ISO 527	MPa	2140
Flexural Strength, 23 °C	ISO 178	MPa	61
Flexural Modulus, 23 °C	ISO 178	MPa	2050
Hardness, Rockwell	-	M scale	70
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°C	99
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.56
Light Transmission at 550 nm	ASTM D 1003	%	89
Haze	ASTM D 1003	%	1.5
Other Properties			
Density	ISO 1183	kg/m³	1050

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Property, Test Condition	Standard	Unit	Values
Water Absorption, Saturated at 23 °C	ISO 62	%	0.1
Processing			
Drying Temperature	-	°C	65
Drying Time	-	h	2
Max Service Temperature	-	°C	250

Typical values for uncolored products

SUPPLY FORM

Zylar resins are available in bulk, 25kg bags or octabin cartons.

PROCESSING

Zylar is a low moisture absorption copolymer and in many instances processes readily without pre-drying. There are combinations of conditions that require the product to be dried, such as high humidity and heavy section molding. Two hours at 60 °C (140 °F) is adequate for most applications. Dehumidifying type driers are recommended. To obtain maximum clarity and gloss from this product, it is necessary to have a highly polished mold. Design of gates, runners and sprues can be patterned after standard practice for high-heat polystyrene. All mold surfaces must be temperature controlled at 54 °C (130 °F) for optimum clarity and surface gloss. For optimum clarity, machine cylinders, barrels, screws, valves, etc. should be thoroughly cleaned before processing. Contamination by other materials will cause streaking or haze.

PRODUCT SAFETY

During processing of Zylar small quantities of styrene monomer may be released into the atmosphere. At styrene vapor concentrations below 20ppm no negative effects on health are expected. In our experience, the concentration of styrene does not exceed 1 ppm in well ventilated workplaces - that is where five to eight air changes per hour are made.

DISCLAIMER

The aforementioned data shall constitute the agreed contractual quality of the product sold by INEOS Styrolution at the time of passing of risk. INEOS Styrolution does not make any further warranty, representation or guarantee of any kind, express or implied, regarding the suitability of the product for any particular purpose or application and INEOS Styrolution 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, INEOS Styrolution's sole and exclusive liability with respect to its products is set forth in INEOS Styrolution's General Terms and Conditions for Sale.