

DESCRIPTION

Zylar[®] 271 is an impact modified styrene acrylic copolymer that provides practical toughness, excellent clarity and superior processing characteristics for demanding injection molded applications.

FEATURES

- High clarity
- Excellent colouring
- Low density
- Good toughness
- Ease of processing

APPLICATIONS

- Appliances and consumer goods
- Toys

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm ³ /10 min	6.8
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	70
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	2
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	2
Charpy Unnotched Impact Strength, 23 °C	ISO 579	kJ/m ²	18
Tensile Stress at Yield, 23 °C	ISO 527	MPa	35
Tensile Strain at Break, 23 °C	ISO 527	%	15
Tensile Modulus	ISO 527	MPa	1860
Flexural Strength, 23 °C	ISO 178	MPa	50
Flexural Modulus, 23 °C	ISO 178	MPa	1860
Hardness, Rockwell	ISO 2039-2	R scale	95
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	75
Vicat Softening Temperature, VST/A/120 (10N, 120 °C/h)	ISO 306	°C	97

TECHNICAL DATASHEET

Property, Test Condition	Standard	Unit	Values
Heat Deflection Temperature A; (unannealed; 1.8 MPa)	ISO 75	°C	80
Heat Deflection Temperature B; (unannealed; 0.45 MPa)	ISO 75	°C	85
Optical Properties			
Light Transmission at 550 nm	ASTM D 1003	%	90
Haze	ASTM D 1003	%	1
Other Properties			
Density	ISO 1183	kg/m ³	1025

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

Zylar® 271 resins are available in 25kg bags or big bags

PROCESSING

Zylar® 271 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® 271 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 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. 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.
