

## Ineos Nova Zylar® 220 High Performance Styrenic, Acrylic Copolymer (discontinued \*\*)

Category : Polymer , Thermoplastic , Acrylic (PMMA) , Polystyrene (PS)

### Material Notes:

Excellent moldability, High clarity, Extended toughness and elongation, meets USP XXI specification for Class VI Plastics, Property retention after gamma irradiation

Applications: Display, medical devices, Office accessories, Small appliances, Break resistant CD jewel boxes, Toys

Injection Speed: Slow to moderate

All molded samples were an 1/8 inch thick unless noted.

General information about ZYLAR®: ZYLAR® acrylic copolymers are The Clear Alternative to polycarbonate, PETG, impact acrylic and clear ABS for applications that demand clarity and toughness and enhanced processing productivity. ZYLAR is a cost effective alternative in injection molding applications, with over 15 years of proven performance. ZYLAR has proven performance in a variety of applications, including medical, floor care, appliances, consumer goods, office accessories and supplies, pens and mechanical pencils, commercial paper towel dispensers, point of purchase displays, cosmetics packaging, toys, electronics packaging, housewares, consumer & industrial, and other applications. ZYLAR® acrylic copolymers provide value through enhanced performance, manufacturing productivity, ease of processing, and potential for capital avoidance through utilization of existing (styrenics) equipment and tooling.

Performance Attributes: Crisp clarity

Outstanding practical toughness and ductility

Balance of toughness and clarity

Easily decorated

Can be printed, hot stamped or metalized.

Gamma, Eto and E-beam sterilizable

Can be bonded to flexible PVC

Alcohol and lipid resistance

Resistance to most industrial and commercial cleaners

Resistance to most household cleaners

Resistant to most food additives

Residential dishwasher safe - top rack

Secondary operations include sonic welding, hotplate welding, ultrasonic bonding and adhesive bonding

Over-molding capability

Product Capabilities

Antistatic and indoor UV grades available

Available in natural and pre-colored

Color matching capabilities

Customer Productivity & Processing

5 to 25% density advantage means more parts per pound of resin

Faster cycle time

Reduced energy and labor costs associated with processing

Lower processing temperatures by as much as 150F

No drying

Styrenic processing

Better thermal stability

More usable regrind and no black specs

Product consistency, color consistency

Easily colored at the press

Easy flow

Able to utilize existing tooling for PC, clear ABS, impact acrylic, PETG, polyesters, propionate (CAP), PVC and other polymers

Information provided by NOVA Chemicals.

This specific grade was discontinued prior to the Styrolution acquisition of the Zylar® product line.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Ineos-Nova-Zylar-220-High-Performance-Styrenic-Acrylic-Copolymer-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Ineos-Nova-Zylar-220-High-Performance-Styrenic-Acrylic-Copolymer-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.05 g/cc	0.0379 lb/in³	ASTM D792
Water Absorption	0.10 %	0.10 %	ASTM D570
Linear Mold Shrinkage	0.0020 - 0.0060 cm/cm	0.0020 - 0.0060 in/in	ASTM D955
Melt Flow	5.2 g/10 min @Load 5.00 kg, Temperature 200 °C	5.2 g/10 min @Load 11.0 lb, Temperature 392 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	76	76	ASTM D785

Tensile Strength, Yield Mechanical Properties	36.0 MPa Metric	5220 psi English	0.2 in/min; ASTM D638 Comments
Elongation at Break	40 %	40 %	0.2 in/min; ASTM D638
Modulus of Elasticity	2.28 GPa	331 ksi	0.2 in/min; ASTM D638
Flexural Strength	57.0 MPa	8270 psi	0.05 in/min; ASTM D790
Flexural Modulus	2.17 GPa	315 ksi	0.05 in/min; ASTM D790
Izod Impact, Notched	0.270 J/cm	0.506 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	87.0 °C	189 °F	ASTM D648
Vicat Softening Point	99.0 °C	210 °F	ASTM D1525
Flammability, UL94	HB	HB	0.060 in for all colors

Optical Properties	Metric	English	Comments
Refractive Index	1.57	1.57	ASTM D542
Haze	1.6 %	1.6 %	ASTM D1003
Transmission, Visible	89.2 %	89.2 %	ASTM D1003

Chemical Properties	Metric	English	Comments
Styrene Content	<= 0.10 %	<= 0.10 %	Residual Styrene Monomer Content per Berre Laboratory Analytical Methods 0075

Processing Properties	Metric	English	Comments
Processing Temperature	<= 243 °C	<= 469 °F	
Rear Barrel Temperature	188 - 221 °C	370 - 430 °F	
Middle Barrel Temperature	193 - 227 °C	379 - 441 °F	
Front Barrel Temperature	199 - 232 °C	390 - 450 °F	
Melt Temperature	210 - 243 °C	410 - 469 °F	
Mold Temperature	27.0 - 54.0 °C	80.6 - 129 °F	
Drying Temperature	65.6 °C	150 °F	
Dry Time	2 hour	2 hour	

## Contact Songhan Plastic Technology Co.,Ltd.

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