

Hylex[®] P2335IL Polycarbonate Resin

Product Attributes

- Low Cost
- V2
- High Flow
- High Impact
- High Gloss



<u>PROPERTY</u>	<u>METHOD</u>	<u>UNIT</u>	<u>VALUES</u>
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PHYSICAL			
Melt Flow (300° C/1.2 kg)	ASTM D1238	g/10min	35
Specific Gravity	ASTM D792	-	1.20
Water Absorption (24-Hr Immersion)	ASTM D570	%	0.15
Mold Shrinkage (Flow Direction)	ASTM D955	in/in x 10 ⁻³	5-7
MECHANICAL @ 73°F			
Tensile Strength	ASTM D638	psi <i>MPa</i>	8,800 61
Elongation	ASTM D638	%	100
Flexural Modulus	ASTM D790	psi <i>MPa</i>	300,000 2,069
Flexural Strength, Break	ASTM D790	psi <i>MPa</i>	11,700 71
Izod Impact Strength (@ 1/8", Notched)	ASTM D256	ft-lb/in <i>J/m</i>	9.0 481
Hardness (Rockwell M)	ASTM D785	-	80
THERMAL			
Heat Deflection Temp. (Unannealed)	ASTM D648	°F °C	243 117
264 psi 1.8 MPa			
FLAME RATING			
UL94 V-2 (Min. Tested Thickness)	UL 94	in (mm)	0.059(1.5)**

†The data listed here fall within the normal range of product properties, but they should not be used to establish specification limits or used alone as a basis for design. This information is not intended as a warranty of any kind. Buyers must make their own representative test and assume all risks of use, whether used alone or in combination with other products. Entec Polymers, LLC assumes no obligation or liability of any advice furnished by it or results obtained with respect to these products. All warranties expressed or implied including warranties of merchantability for a particular purpose or use are excluded and disclaimed. Entec Polymers, LLC assumes no liability for use of products in infringement of any patent. The foregoing limitation of remedy and exclusion of liability is reflected in and is part of the consideration for the price at which the products are sold by Entec Polymers, LLC. All data displayed herein has been obtained via testing of injection-molded specimens of natural color. Pigmentation may affect certain properties to various degrees.

**Testing per Entec Engineered Resins



An OEM designed and built tooling for an air purifier housing with the expectations of using a flame retardant ABS. When they went into their contract molder for first inspections of finished parts they were very disappointed in the physical appearance of the parts. The black ABS had a much lower gloss level than what they had hoped for. Even the high polished cavity surfaces did not have the sheen and luster that they were after. The custom molder, who was an active customer of Entech Engineered Resins, suggested we get involved to see if we had a product that could meet the physical property criteria and at the same time satisfy the need in terms of an depth of black and gloss. Now time was a crucial factor in that the route to market plans were laid but could not be met.

The obvious solution was Polycarbonate but the stigma of the cost associated with using that resin seemed to make it out of reach. Developmental research revealed that we could in fact produce an economy grade PC inside of the HYLEX[®] line. P2335IL was developed so that it could not only satisfy the need for gloss, but could be available in a melt flow range that would allow easy processing of the large part and meet the UL 94 V2 requirements of the electrical appliance. The creative approach to commercializing this grade allowed a price point to be hit that was similar to the ABS material that was initially targeted.

Quick reaction and creative developmental know how resulted in salvaging what otherwise might have been a disappointing product launch for this small appliance.

HYLEX[®] 2335IL is available in melt flows of 25+, is UV stabilized and posses a V2 rating. While it is only available in opaque colors, the general nature of the compound in terms of esthetics is outstanding.

HYLEX[®] P2335IL POLYCARBONATE RESIN