

# Hybrid<sup>®</sup> B3030U PC/PBT Alloy Resin



### Product Attributes

- Extreme Toughness
- Chemical Resistance
- UV Resistance
- Pre-Colored Accuracy



<u>PROPERTY</u>	<u>METHOD</u>	<u>UNIT</u>	<u>VALUES</u>
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<b>PHYSICAL</b>			
Melt Flow (260° C/5kg)	ASTM D1238	g/10min	32
Specific Gravity	ASTM D792	-	1.21
Water Absorption (24-Hr Immersion)	ASTM D570	%	-
Mold Shrinkage (Flow Direction)	ASTM D955	in/in x 10 <sup>-3</sup>	-
<b>MECHANICAL @ 73°F</b>			
Tensile Strength, Yield	ASTM D638	psi <i>MPa</i>	9,200 63
Flexural Modulus	ASTM D790	psi <i>MPa</i>	360,000 2,482
Flexural Strength, Yield	ASTM D790	psi <i>MPa</i>	14,000 97
Izod Impact Strength (@ 1/8", Notched)	ASTM D256	ft-lb/in <i>J/m</i>	13 694
<b>THERMAL</b>			
Heat Deflection Temp. (Unannealed)	ASTM D648		
66 psi		°F	-
0.5 MPa		°C	-
264 psi		°F	222
1.8 MPa		°C	106

†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.



When a large nationally known OEM of outdoor equipment power sources was in search of an alternate material supplier, their challenge was a complex one. The demands that are put against a gasoline engine in application can be extreme. Physical, chemical, and UV resistance requirements dictate the use of specially engineered thermoplastic compounds whose properties can withstand these types of long term and repeated exposures. In addition, the necessity for pure aesthetics in color and surface uniformity were added to the list of customer demands.

Enter Entec Engineered Resins HYBRID<sup>®</sup> B3030U Polycarbonate Polyester Alloy. This unique blend of PC/PBT not only allowed for a running change but also did so while offering true value enhancements in processing and scrap reduction on top of already basic resin cost savings. When subjected to abusive performance related testing, our B3030U withstood extreme impact, vibration, and fuel exposures. In addition, it proved resistant in a five-year outdoor UV accelerated weather test. The HYBRID<sup>®</sup> compound also met the color challenge when bright red, yellow, and gold matches were approved for strict brand recognition and critical surface area appearance.

Please explore the entire line of Entec Engineered Resins HYBRID<sup>®</sup> Thermoplastic alloys. In addition to our B3030U compound profiled here, we have a comprehensive line of formulations based on PC, Polyesters, ABS, ASA and other blend options geared to satisfy the most demanding applications.