

Technical Data Sheet

Type: Isoplast® 101 ETP is an engineering thermoplastic resin.

Typical Properties	Test Method	English		S.I.	
		Values*	Units	Values*	Units
Physical					
Gardner 60° Gloss	ASTM D823	100	%	100	%
Mold Shrinkage	ASTM D 955	0.004-0.006	In/in	0.004-0.006	mm/mm
Water Absorption, 24 hours at 73°F (23°C)	ASTM D 570	0.17	%	0.17	%
Specific Gravity	ASTM D 792	1.19		1.19	
Mechanical					
Tensile Strength at Yield	ASTM D 638	7,000	psi	48	MPa
Tensile Strength at Break	ASTM D 638	7,000	psi	48	MPa
Elongation at Yield	ASTM D 638	6	%	6	%
Elongation at Break	ASTM D 638	160	%	160	%
Tensile Modulus	ASTM D 638	220,000	psi	1,500	MPa
Flexural Strength	ASTM D 790	9,900	psi	68	MPa
Flexural Modulus	ASTM D 790	260,000	psi	1,800	MPa
Izod Impact Strength	ASTM D 256	24	ft-lb/in	1,280	J/m
- Notched, 1/8" (3.2 mm), 73°F (23°C)		3	ft-lb/in	160	J/m
- Notched, 1/8" (3.2 mm), -40°F (-40°C)		21	ft-lb/in	1,100	J/m
- Notched, ¼" (6.4mm), 73°F (23°C)					
Instrumented Dart Impact	ASTM D 3763	600	In-lb	68	J
- Total Energy at 73°F (23°C)		600	In-lb	68	J
- Total Energy at -20°F (-29°)					
Rockwell Hardness	ASTM D 785	116		116	
- R Scale					
- M Scale		-		-	
Thermal					
Deflection Temperature Under Load	ASTM D 648	160	°F	71	°C
- 66 psi (0.45 MPa), unannealed		180	°F	82	°C
- 66 psi (0.45 MPa), annealed		140	°F	60	°C
- 264 psi (1.8 MPa), unannealed		170	°F	77	°C
- 264 psi (1.8 MPa), annealed					
Vicat Temperature	ASTM D 1525	192	°F	89	°C
Coefficient of Linear Thermal Expansion	ASTM D 696	4.5	10 ⁻⁵ in/in/°F	8.1	10 ⁻⁵ mm/mm/°C
Optical					
Light Transmission	ASTM D 1003	-	%	-	%
Yellowness Index	ASTM D 1925	-	%	-	%
Processing Information					
Recommended Drying Temperature		185-195	°F	85-91	°C
Recommended Melt Temperature		430-470	°F	221-243	°C
Recommended Mold Temperature		150-180	°F	66-82	°C

*Typical values, not to be construed as specifications. Users should confirm results by their own tests.

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained. The information often is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance or reproducibility. Formulations presented may not have been tested for stability and should be used only as a suggested starting point. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Lubrizol Advanced Materials, Inc. shall not be liable for and the customer assumes all risk and liability for any use or handling of any material beyond Lubrizol Advanced Materials, Inc.'s direct control. The SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation nor as an inducement to practice any patented invention without permission of the patent owner.

