

Technical Data Sheet

Type: Isoplast® 101 LGF40 ETP is an engineering thermoplastic resin.

Typical Properties	Test Method	English		S.I.	
		Values*	Units	Values*	Units
Physical					
Mold Shrinkage	ASTM D 955	0.001	In/in	0.001	mm/mm
Water Absorption, 24 hours at 73°F (23°C)	ASTM D 570	-	%	-	%
Specific Gravity	ASTM D 792	1.51		1.51	
Mechanical					
Tensile Strength at Yield	ASTM D 638	27,000	psi	186	MPa
Tensile Strength at Break	ASTM D 638	27,000	psi	186	MPa
Elongation at Yield	ASTM D 638	2	%	2	%
Elongation at Break	ASTM D 638	2	%	2	%
Tensile Modulus	ASTM D 638	1,700,000	psi	12,000	MPa
Flexural Strength	ASTM D 790	45,000	psi	310	MPa
Flexural Modulus	ASTM D 790	1,500,000	psi	10,000	MPa
Izod Impact Strength					
- Notched, 1/8" (3.2 mm), 73°F (23°C)	ASTM D 256	8	ft-lb/in	427	J/m
- Notched, 1/8" (3.2 mm), -40°F (-40°C)		8	ft-lb/in	427	J/m
Instrumented Dart Impact					
- Total Energy at 73°F (23°C)	ASTM D 3763	270	In-lb	31	J
- Total Energy at -20°F (-29°)		150	In-lb	17	J
Thermal					
Deflection Temperature Under Load					
- 66 psi (0.45 MPa), unannealed	ASTM D 648	-	°F	-	°C
- 66 psi (0.45 MPa), annealed		-	°F	-	°C
- 264 psi (1.8 MPa), unannealed		200	°F	93	°C
- 264 psi (1.8 MPa), annealed		210	°F	99	°C
Vicat Temperature	ASTM D 1525	366	°F	186	°C
Coefficient of Linear Thermal Expansion	ASTM D 696	0.8	10 ⁻⁵ in/in/°F	1.4	10 ⁻⁵ mm/mm/°C
Processing Information					
Recommended Drying Temperature		180-210	°F	82-99	°C
Recommended Melt Temperature		460-500	°F	238-260	°C
Recommended Mold Temperature		150-190	°F	66-88	°C

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

(1) Under no circumstances should glass reinforced resins be heated above 500°F (260°C) during molding or purging. This might cause decomposition, leaving a glass-enriched melt, which cannot be extruded, and therefore could seize the screw.

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