

Zytel® HTN 54G15HSLR BK031

HIGH PERFORMANCE POLYAMIDE RESIN

Product Description

Zytel® HTN54G15HSLR BK031 is a 15% glass reinforced, toughened, heat stabilized, hydrolysis resistant high performance polyamide resin. It is also a PPA resin.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber Reinforcement, 15% Filler by Weight
Additive	• Heat Stabilizer • Lubricant
Features	• Heat Stabilized • Hydrolysis Resistant • Ultrasonic Weldable
RoHS Compliance	• Contact Manufacturer
Appearance	• Black
Processing Method	• Injection Molding
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)
Part Marking Code (ISO 11469)	• >PA-IGF15<
Resin ID (ISO 1043)	• PA6T/XT+PA6T/66-IGF15
Product Category	• Glass Reinforced Resins • Hydrolysis Resistant Resins • Toughened Resins
Part Marking Code (SAE J1344)	• >PPA-IGF15<

Physical	Dry	Conditioned	Unit	Test Method
Density	1.25	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow: 0.0787 in	0.70	--	%	
Flow: 0.0787 in	0.40	--	%	
Water Absorption (73°F, 24 hr)	0.80	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	798000	885000	psi	ISO 527-2
Tensile Stress (Break, 73°F)	18100	17100	psi	ISO 527-2
Tensile Strain				ISO 527-2
Yield, 73°F	3.1	--	%	
Break, 73°F	3.5	3.0	%	
Nominal Tensile Strain at Break (73°F)	4.2	--	%	ISO 527-2
Flexural Modulus (73°F)	711000	--	psi	ISO 178
Flexural Strength (73°F)	30500	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	2.4	--	ft-lb/in ²	
73°F	2.9	--	ft-lb/in ²	
Charpy Unnotched Impact Strength (73°F)	29	--	ft-lb/in ²	ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi, Unannealed	531	--	°F	ISO 75-2/B
264 psi, Unannealed	446	--	°F	ISO 75-2/A
Melting Temperature ²	572	--	°F	ISO 11357-3
CLTE				ISO 11359-2
Flow: -40 to 73°F	0.000019	--	in/in/°F	
Flow: 73 to 131°F	0.000019	--	in/in/°F	
Flow: 320 to 392°F	0.000014	--	in/in/°F	
Transverse: -40 to 73°F	0.000039	--	in/in/°F	
Transverse: 73 to 131°F	0.000041	--	in/in/°F	
Transverse: 320 to 392°F	0.000050	--	in/in/°F	

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Page: 1 of 3

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+16	--	ohms	IEC 60093
Volume Resistivity	1.0E+15	--	ohm-cm	IEC 60093
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating - UL (0.0315 in)	HB	--		UL 94
UL	Dry	Conditioned	Unit	Test Method
RTI Str				UL 746
0.0315 in	239	--	°F	
0.0591 in	266	--	°F	
0.118 in	284	--	°F	
RTI Imp				UL 746
0.0315 in	221	--	°F	
0.0591 in	248	--	°F	
0.118 in	266	--	°F	
RTI Elec				UL 746
0.0315 in	302	--	°F	
0.118 in	302	--	°F	
Injection	Dry Unit			
Drying Temperature	212 °F			
Drying Time	6.0 to 8.0 hr			
Suggested Max Moisture	< 0.10 %			
Processing (Melt) Temp	608 to 626 °F			
Melt Temperature, Optimum	617 °F			
Mold Temperature	185 to 275 °F			
Mold Temperature, Optimum	203 °F			

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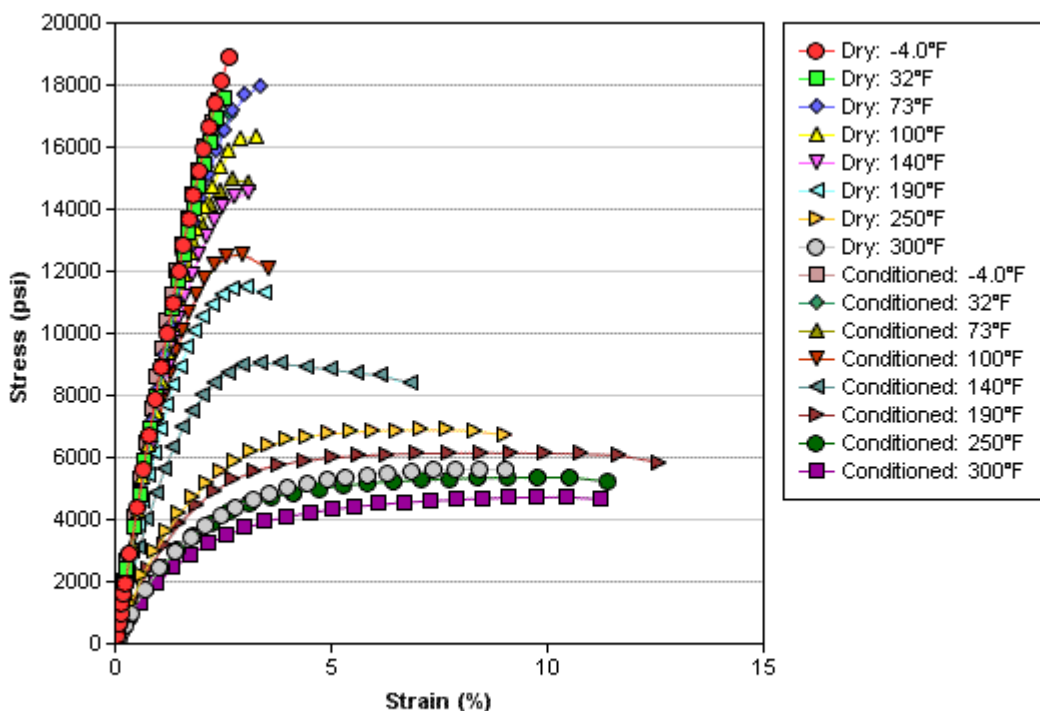
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Isothermal Stress vs. Strain (ISO 11403-1)



Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min, First Heat

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.

Test temperatures are 23°C unless otherwise stated.

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Page: 3 of 3

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