

Zytel® 73G30HSL NC010

NYLON RESIN

Product Description

Zytel® 73G30HSL NC010 is a 30% glass fiber reinforced, heat stabilized polyamide 6 resin for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber Reinforcement, 30% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	
Features	• Fatigue Resistant • Fuel Resistant • Good Chemical Resistance	• Good Heat Aging Resistance • Good Thermal Aging Resistance • Grease Resistant	• Oil Resistant
Uses	• Appliance Components • Automotive Applications	• Electrical/Electronic Applications • High Gloss Applications	• Industrial Applications
RoHS Compliance	• Contact Manufacturer		
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Part Marking Code (ISO 11469)	• >PA6-GF30<		
Resin ID (ISO 1043)	• PA6-GF30		
Product Category	• Glass Reinforced Resins		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.36	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	0.244	--	in ³ /10min	ISO 1133
Molding Shrinkage				ISO 294-4
Across Flow: 0.0787 in	0.60	--	%	
Flow: 0.0787 in	0.20	--	%	
Water Absorption				ISO 62
Saturation, 73°F	6.3	--	%	
Equilibrium, 73°F, 50% RH	1.9	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.41E+6	841000	psi	ISO 527-2
Tensile Stress (Break, 73°F)	26800	16700	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.5	6.0	%	ISO 527-2
Tensile Creep Modulus				ISO 899-1
1 hr	--	898000	psi	
1000 hr	--	672000	psi	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	4.8	10	ft-lb/in ²	
73°F	7.6	11	ft-lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	38	40	ft-lb/in ²	
73°F	48	48	ft-lb/in ²	
Notched Izod Impact Strength				ISO 180/1A
-22°F	4.8	5.2	ft-lb/in ²	
73°F	7.1	9.5	ft-lb/in ²	

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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi, Unannealed	428	--	°F	ISO 75-2/B
264 psi, Unannealed	410	--	°F	ISO 75-2/A
Glass Transition Temperature	149	--	°F	ISO 11357-2
Melting Temperature ²	430	--	°F	ISO 11357-3
CLTE				ASTM E831 ISO 11359-2
Flow: 73 to 131°F	0.000012	--	in/in/°F	
Transverse: 73 to 131°F	0.000057	--	in/in/°F	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating - UL				UL 94
0.0295 in	HB	--		
0.0591 in	HB	--		
0.118 in	HB	--		
Flammability Classification				IEC 60695-11-10, -20
0.0295 in	HB	--		
0.0591 in	HB	--		
0.118 in	HB	--		
UL	Dry	Conditioned	Unit	Test Method
RTI Str				UL 746
0.0295 in	149	--	°F	
0.0591 in	149	--	°F	
RTI Imp				UL 746
0.0295 in	149	--	°F	
0.0591 in	149	--	°F	
0.118 in	149	--	°F	
RTI Elec				UL 746
0.0295 in	149	--	°F	
0.0591 in	149	--	°F	
0.118 in	149	--	°F	
Injection	Dry Unit			
Drying Temperature	176 °F			
Drying Time	2.0 to 4.0 hr			
Suggested Max Moisture	< 0.20 %			
Processing (Melt) Temp	500 to 536 °F			
Melt Temperature, Optimum	518 °F			
Mold Temperature	158 to 248 °F			
Mold Temperature, Optimum	212 °F			
Drying Recommended	Yes, if moisture content of resin exceeds recommended level			

Notes

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

² 10°C/min

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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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