

Zytel® 70K20HSL NC010

NYLON RESIN

DuPont Engineering Polymers



Prospector

Product Description

Zytel® 70K20HSL NC010 is a heat stabilized PA66 resin modified with Kevlar® aramid fiber for excellent wear resistance.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Aramid Fiber, 20% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized • Ultrasonic Weldable
RoHS Compliance	• Contact Manufacturer
Appearance	• Natural Color
Processing Method	• Injection Molding
Part Marking Code (ISO 11469)	• >PA66-RF20<
Resin ID (ISO 1043)	• PA66-RF20

Physical	Dry	Conditioned	Unit	Test Method
Density	1.19	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow: 0.0787 in (2.00 mm)	1.4	--	%	
Flow: 0.0787 in (2.00 mm)	0.90	--	%	
Water Absorption				ISO 62
Saturation, 73°F (23°C)	6.8	--	%	
Equilibrium, 73°F (23°C), 50% RH	2.7	--	%	

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F (23°C))	769000 (5300)	508000 (3500)	psi (MPa)	ISO 527-2
Tensile Stress (Break, 73°F (23°C))	16000 (110)	12300 (85.0)	psi (MPa)	ISO 527-2
Tensile Strain (Break, 73°F (23°C))	5.2	7.2	%	ISO 527-2
Flexural Modulus (73°F (23°C))	711000 (4900)	479000 (3300)	psi (MPa)	ISO 178

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (73°F (23°C))	2.9 (6.0)	4.3 (9.0)	ft-lb/in ² (kJ/m ²)	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F (23°C)	24 (50)	31 (65)	ft-lb/in ² (kJ/m ²)	
Notched Izod Impact Strength (73°F (23°C))	2.4 (5.0)	3.3 (7.0)	ft-lb/in ² (kJ/m ²)	ISO 180/1A

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	491 (255)	--	°F (°C)	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	432 (222)	--	°F (°C)	ISO 75-2/A
Melting Temperature ²	505 (263)	--	°F (°C)	ISO 11357-3

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80.0 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	< 0.20 %	< 0.20 %
Processing (Melt) Temp	545 to 581 °F	285 to 305 °C

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Injection	Dry (English)	Dry (SI)
Melt Temperature, Optimum	563 °F	295 °C
Mold Temperature	158 to 248 °F	70.0 to 120 °C
Mold Temperature, Optimum	212 °F	100 °C
Drying Recommended	Yes, if moisture content of resin exceeds recommended level	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