

## DuPont Performance Polymers Zytel® 70G25HSL NC010 Nylon 66 (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 30% Glass Fiber Filled

### Material Notes:

Zytel® 70G25HSL NC010 is a 25% glass fiber reinforced, heat stabilized polyamide 66 resin for injection molding. Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Zytel-70G25HSL-NC010-Nylon-66-nnbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-70G25HSL-NC010-Nylon-66-nnbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.33 g/cc	0.0480 lb/in <sup>3</sup>	DAM; ISO 1183
Water Absorption	2.0 % @Temperature 23.0 °C	2.0 % @Temperature 73.4 °F	Equilibrium 50%RH; DAM; ISO 62, Similar to
	6.4 % @Temperature 23.0 °C	6.4 % @Temperature 73.4 °F	Saturation, immersed; DAM; ISO 62, Similar to
Linear Mold Shrinkage, Flow	0.0030 cm/cm @Thickness 2.00 mm	0.0030 in/in @Thickness 0.0787 in	DAM; ISO 294-4
Linear Mold Shrinkage, Transverse	0.011 cm/cm @Thickness 2.00 mm	0.011 in/in @Thickness 0.0787 in	DAM; ISO 294-4

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	87	87	50%RH; ISO 2039/2
	103	103	DAM; ISO 2039/2
Hardness, Rockwell R	116	116	50%RH; ISO 2039/2
	123	123	DAM; ISO 2039/2
Tensile Strength at Break	115 MPa @Temperature 23.0 °C	16700 psi @Temperature 73.4 °F	50%RH; ISO 527
	188 MPa @Temperature 23.0 °C	27300 psi @Temperature 73.4 °F	DAM; ISO 527
Elongation at Break	3.1 % @Temperature 23.0 °C	3.1 % @Temperature 73.4 °F	DAM; ISO 527
	5.0 %	5.0 %	50%RH; ISO 527

Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments
Tensile Modulus	6.10 GPa	885 ksi	50%RH; ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Strength	8.60 GPa	1250 ksi	DAM; ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Shear Modulus	165 MPa	23900 psi	50%RH; ISO 178
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Shear Modulus	240 MPa	34800 psi	DAM; ISO 178
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Shear Modulus	0.265 GPa	38.4 ksi	DAM; ISO 6721
	@Temperature 250 °C	@Temperature 482 °F	
Shear Modulus	0.348 GPa	50.5 ksi	DAM; ISO 6721
	@Temperature 240 °C	@Temperature 464 °F	
Shear Modulus	0.395 GPa	57.3 ksi	DAM; ISO 6721
	@Temperature 230 °C	@Temperature 446 °F	
Shear Modulus	0.426 GPa	61.8 ksi	DAM; ISO 6721
	@Temperature 220 °C	@Temperature 428 °F	
Shear Modulus	0.448 GPa	65.0 ksi	DAM; ISO 6721
	@Temperature 210 °C	@Temperature 410 °F	
Shear Modulus	0.464 GPa	67.3 ksi	DAM; ISO 6721
	@Temperature 200 °C	@Temperature 392 °F	
Shear Modulus	0.479 GPa	69.5 ksi	DAM; ISO 6721
	@Temperature 190 °C	@Temperature 374 °F	
Shear Modulus	0.495 GPa	71.8 ksi	DAM; ISO 6721
	@Temperature 180 °C	@Temperature 356 °F	
Shear Modulus	0.510 GPa	74.0 ksi	DAM; ISO 6721
	@Temperature 170 °C	@Temperature 338 °F	
Shear Modulus	0.524 GPa	76.0 ksi	DAM; ISO 6721
	@Temperature 160 °C	@Temperature 320 °F	
Shear Modulus	0.539 GPa	78.2 ksi	DAM; ISO 6721
	@Temperature 150 °C	@Temperature 302 °F	

Mechanical Properties	Metric	English	Comments
	0.556 GPa	80.6 ksi	DAM; ISO 6721
	@Temperature 140 °C	@Temperature 284 °F	
	0.575 GPa	83.4 ksi	DAM; ISO 6721
	@Temperature 130 °C	@Temperature 266 °F	
	0.597 GPa	86.6 ksi	DAM; ISO 6721
	@Temperature 120 °C	@Temperature 248 °F	
	0.628 GPa	91.1 ksi	DAM; ISO 6721
	@Temperature 110 °C	@Temperature 230 °F	
	0.676 GPa	98.0 ksi	DAM; ISO 6721
	@Temperature 100 °C	@Temperature 212 °F	
	0.754 GPa	109 ksi	DAM; ISO 6721
	@Temperature 90.0 °C	@Temperature 194 °F	
	0.878 GPa	127 ksi	DAM; ISO 6721
	@Temperature 80.0 °C	@Temperature 176 °F	
	1.05 GPa	152 ksi	DAM; ISO 6721
	@Temperature 70.0 °C	@Temperature 158 °F	
	1.29 GPa	187 ksi	DAM; ISO 6721
	@Temperature 60.0 °C	@Temperature 140 °F	
	1.60 GPa	232 ksi	DAM; ISO 6721
	@Temperature 50.0 °C	@Temperature 122 °F	
	1.72 GPa	249 ksi	DAM; ISO 6721
	@Temperature 40.0 °C	@Temperature 104 °F	
	1.78 GPa	258 ksi	DAM; ISO 6721
	@Temperature 30.0 °C	@Temperature 86.0 °F	
	1.83 GPa	265 ksi	DAM; ISO 6721
	@Temperature 20.0 °C	@Temperature 68.0 °F	
	1.87 GPa	271 ksi	DAM; ISO 6721
	@Temperature 10.0 °C	@Temperature 50.0 °F	
	1.90 GPa	276 ksi	DAM; ISO 6721
	@Temperature 0.000 °C	@Temperature 32.0 °F	
	1.91 GPa	277 ksi	

Mechanical Properties	Metric @Temperature -10.0 °C	English @Temperature 14.0 °F	DAM; ISO 6721 Comments
	1.92 GPa @Temperature -20.0 °C	278 ksi @Temperature -4.00 °F	DAM; ISO 6721
	1.93 GPa @Temperature -30.0 °C	280 ksi @Temperature -22.0 °F	DAM; ISO 6721
	1.96 GPa @Temperature -40.0 °C	284 ksi @Temperature -40.0 °F	DAM; ISO 6721
	1.99 GPa @Temperature -50.0 °C	289 ksi @Temperature -58.0 °F	DAM; ISO 6721
Izod Impact, Notched (ISO)	8.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	3.81 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	DAM; ISO 180/1A
	8.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	3.81 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	50%RH; ISO 180/1A
	10.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	4.76 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	DAM; ISO 180/1A
	11.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	5.23 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	50%RH; ISO 180/1A
Charpy Impact Unnotched	4.70 J/cm <sup>2</sup> @Temperature -30.0 °C	22.4 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	50%RH; ISO 179/1eU
	5.30 J/cm <sup>2</sup> @Temperature -30.0 °C	25.2 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	DAM; ISO 179/1eU
	6.50 J/cm <sup>2</sup> @Temperature 23.0 °C	30.9 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	DAM; ISO 179/1eU
	8.50 J/cm <sup>2</sup> @Temperature 23.0 °C	40.4 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	50%RH; ISO 179/1eU
Charpy Impact, Notched	1.00 J/cm <sup>2</sup> @Temperature -30.0 °C	4.76 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	DAM; ISO 179/1eA
	1.00 J/cm <sup>2</sup> @Temperature 23.0 °C	4.76 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	DAM; ISO 179/1eA
	1.10 J/cm <sup>2</sup>	5.23 ft-lb/in <sup>2</sup>	50%RH; ISO 179/1eA

Mechanical Properties	@Temperature -30.0 °C Metric 1.20 J/cm <sup>2</sup>	@Temperature -22.0 °F English 0.71 ft-lb/in <sup>2</sup>	Comments
			50%RH; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Creep Modulus, 1 hour	5000 MPa	725000 psi	50%RH; ISO 899
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Creep Modulus, 1000 hours	4100 MPa	595000 psi	50%RH; ISO 899
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	50%RH; IEC 60093
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	DAM; IEC 60093
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	1.00e+17 ohm-cm	1.00e+17 ohm-cm	DAM; IEC 60093
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	50%RH; IEC 60093
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	>= 1.00e+15 ohm	>= 1.00e+15 ohm	DAM; IEC 60093
	@Temperature 23.0 °C	@Temperature 73.4 °F	

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