

DuPont Zytel® 70G20HSL

20% glass fiber reinforced, heat stabilized, lubricated polyamide 66

While this product line has been acquired by Celanese, this specific grade had been discontinued while still a DuPont product so it is listed here as a discontinued DuPont product.

Physical Properties	Metric	English	Comments
Density	1.28 g/cc	0.0462 lb/in ³	DAM; ISO 1183
Melt Density	1.12 g/cc	0.0405 lb/in ³	
Water Absorption	6.8 % @Thickness 2.00 mm	6.8 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
	1.5 % @Thickness 2.00 mm, Time 86400 sec	1.5 % @Thickness 0.0787 in, Time 24.0 hour	wall thickness 2mm; DAM; Sim. to ISO 62
Moisture Absorption	2.10 % @Thickness 2.00 mm	2.10 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
Viscosity Number	148 cm ³ /g	1.48 dl/g	DAM; ISO 307, 1157, 1628
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	DAM; ISO 294-4, 2577
Linear Mold Shrinkage, Transverse	0.012 cm/cm	0.012 in/in	DAM; ISO 294-4, 2577

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	85	85	50%RH; ISO 2039-2
	102	102	DAM; ISO 2039-2
Hardness, Rockwell R	115	115	50%RH; ISO 2039-2
	122	122	DAM; ISO 2039-2
Tensile Strength at Break	100 MPa	14500 psi	50%RH; ISO 527-1/-2
	150 MPa	21800 psi	DAM; ISO 527-1/-2
Elongation at Break	2.7 %	2.7 %	DAM; ISO 527-1/-2

	7.0 %	7.0 %	50%RH; ISO 527-1/-2
Tensile Modulus	5.00 GPa	725 ksi	50%RH; ISO 527-1/-2
	7.20 GPa	1040 ksi	DAM; ISO 527-1/-2
Poissons Ratio	0.35	0.35	DAM
	0.35	0.35	50%RH
Izod Impact, Notched (ISO)	6.00 kJ/m ² @Temperature -30.0 °C	2.86 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 180/1A
	7.00 kJ/m ² @Temperature -30.0 °C	3.33 ft-lb/in ² @Temperature -22.0 °F	50%RH; ISO 180/1A
	7.00 kJ/m ² @Temperature 23.0 °C	3.33 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 180/1A
	9.00 kJ/m ² @Temperature 23.0 °C	4.28 ft-lb/in ² @Temperature 73.4 °F	50%RH; ISO 180/1A
Charpy Impact Unnotched	4.50 J/cm ² @Temperature -30.0 °C	21.4 ft-lb/in ² @Temperature -22.0 °F	50%RH; ISO 179/1eU
	5.00 J/cm ² @Temperature -30.0 °C	23.8 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 179/1eU
	5.00 J/cm ² @Temperature 23.0 °C	23.8 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 179/1eU
	7.50 J/cm ² @Temperature 23.0 °C	35.7 ft-lb/in ² @Temperature 73.4 °F	50%RH; ISO 179/1eU
Charpy Impact, Notched	0.500 J/cm ² @Temperature -30.0 °C	2.38 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 179/1eA
	0.600 J/cm ² @Temperature -30.0 °C	2.86 ft-lb/in ² @Temperature -22.0 °F	50%RH; ISO 179/1eA
	0.600 J/cm ² @Temperature 23.0 °C	2.86 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 179/1eA
	0.900 J/cm ² @Temperature 23.0 °C	4.28 ft-lb/in ² @Temperature 73.4 °F	50%RH; ISO 179/1eA
Tensile Creep Modulus, 1 hour	4700 MPa	682000 psi	50%RH; ISO 899-1
Tensile Creep Modulus, 1000 hours	3100 MPa	450000 psi	50%RH; ISO 899-1