

DuPont Zytel® 70G30HSL

30% Glass Reinforced, Heat Stabilized, 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	1.37 g/cc	0.0495 lb/in ³	DAM; ISO 1183
Water Absorption	6.0 % @Thickness 2.00 mm	6.0 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
Moisture Absorption	1.90 % @Thickness 2.00 mm	1.90 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	DAM; ISO 294-4, 2577
Linear Mold Shrinkage, Transverse	0.011 cm/cm	0.011 in/in	DAM; ISO 294-4, 2577

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	88	88	50% RH; ISO 2039-2
	104	104	DAM; ISO 2039-2
Hardness, Rockwell R	117	117	50% RH; ISO 2039-2
	124	124	DAM; ISO 2039-2
Tensile Strength at Break	130 MPa	18900 psi	50% RH; ISO 527-1/-2
	200 MPa	29000 psi	DAM; ISO 527-1/-2
Elongation at Break	3.4 %	3.4 %	DAM; ISO 527-1/-2
	5.0 %	5.0 %	50% RH; ISO 527-1/-2
Tensile Modulus	7.00 GPa	1020 ksi	50% RH; ISO 527-1/-2
	10.0 GPa	1450 ksi	DAM; ISO 527-1/-2
Flexural Strength	200 MPa	29000 psi	50% RH; ISO 178
	280 MPa	40600 psi	DAM; ISO 178
Flexural Modulus	6.30 GPa	914 ksi	50% RH; ISO 178
	9.00 GPa	1310 ksi	DAM; ISO 178
Poissons Ratio	0.34	0.34	DAM; ISO 527-1/-2

	0.35	0.35	50%RH; ISO 527-1/-2
Izod Impact, Unnotched (ISO)	10.0 kJ/m ² @Temperature -30.0 °C	4.76 ft-lb/in ² @Temperature -22.0 °F	50% RH; ISO 180/1A
	12.0 kJ/m ² @Temperature -30.0 °C	5.71 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 180/1A
	13.0 kJ/m ² @Temperature 23.0 °C	6.19 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 180/1A
	17.0 kJ/m ² @Temperature 23.0 °C	8.09 ft-lb/in ² @Temperature 73.4 °F	50% RH; ISO 180/1A
Charpy Impact Unnotched	7.00 J/cm ² @Temperature -30.0 °C	33.3 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 179/1eU
	7.30 J/cm ² @Temperature -30.0 °C	34.7 ft-lb/in ² @Temperature -22.0 °F	50% RH; ISO 179/1eU
	8.20 J/cm ² @Temperature 23.0 °C	39.0 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 179/1eU
	9.30 J/cm ² @Temperature 23.0 °C	44.3 ft-lb/in ² @Temperature 73.4 °F	50% RH; ISO 179/1eU
Charpy Impact, Notched	1.00 J/cm ² @Temperature -30.0 °C	4.76 ft-lb/in ² @Temperature -22.0 °F	50% RH; ISO 179/1eA
	1.00 J/cm ² @Temperature -30.0 °C	4.76 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 179/1eA
	1.20 J/cm ² @Temperature 23.0 °C	5.71 ft-lb/in ² @Temperature 73.4 °F	DAM; ISO 179/1eA
	1.60 J/cm ² @Temperature 23.0 °C	7.61 ft-lb/in ² @Temperature 73.4 °F	50% RH; ISO 179/1eA
Tensile Creep Modulus, 1 hour	6800 MPa	986000 psi	50% RH; ISO 899-1
Tensile Creep Modulus, 1000 hours	5100 MPa	740000 psi	50% RH; ISO 899-1