



DSM Akulon® Diablo HT50-HPG5 (PA66+PA6)-GF25

Categories: [Polymer](#); [Thermoplastic](#); [Nylon](#); [Nylon 6/66](#); [Nylon 66/Nylon 6 Blend](#), [Glass Fiber Filled](#)

Material Notes: 25% Glass Reinforced, Heat Stabilized, Blow Molding Grade

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.29 g/cc	0.0466 lb/in ³	dry; ISO 1183
Water Absorption	6.7 %	6.7 %	Sim. To ISO 62
Moisture Absorption	2.60 %	2.60 %	Sim. To ISO 62
Linear Mold Shrinkage, Flow	0.0115 cm/cm	0.0115 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.014 cm/cm	0.014 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	80.0 MPa	11600 psi	cond; ISO 527-1-2
	145 MPa	21000 psi	dry; ISO 527-1-2
Elongation at Break	4.5 %	4.5 %	dry; ISO 527-1-2
	16 %	16 %	cond; ISO 527-1-2
Tensile Modulus	3.40 GPa	493 ksi	cond; ISO 527-1-2
	8.20 GPa	1190 ksi	dry; ISO 527-1-2
Charpy Impact Unnotched 	8.00 J/cm ² @Temperature 23.0 °C	38.1 ft-lb/in ² @Temperature 73.4 °F	dry; ISO 179/1eU
	9.00 J/cm ² @Temperature -30.0 °C	42.8 ft-lb/in ² @Temperature -22.0 °F	dry; ISO 179/1eU
	9.00 J/cm ² @Temperature -30.0 °C	42.8 ft-lb/in ² @Temperature -22.0 °F	cond; ISO 179/1eU
	11.5 J/cm ² @Temperature 23.0 °C	54.7 ft-lb/in ² @Temperature 73.4 °F	cond; 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	dry; ISO 179/1eA
	1.50 J/cm ² @Temperature -30.0 °C	7.14 ft-lb/in ² @Temperature -22.0 °F	cond; ISO 179/1eA
	1.90 J/cm ² @Temperature 23.0 °C	9.04 ft-lb/in ² @Temperature 73.4 °F	dry; ISO 179/1eA
	4.00 J/cm ² @Temperature 23.0 °C	19.0 ft-lb/in ² @Temperature 73.4 °F	cond; ISO 179/1eA

Thermal Properties	Metric	English	Comments
Melting Point	255 °C	491 °F	10°C/min,dry; ISO 11357-1-3
Deflection Temperature at 0.46 MPa (66 psi)	225 °C	437 °F	dry; ISO 75-1-2
Deflection Temperature at 1.8 MPa (264 psi)	200 °C	392 °F	dry; ISO 75-1-2

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.