

## DSM Novamid® 1013G45 1 NA PA6-GF45

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 50% Glass Fiber Filled

### Material Notes:

45% Glass Reinforced, Injection Molding

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DSM-Novamid-1013G45-1-NA-PA6-GF45.php](http://www.lookpolymers.com/polymer_DSM-Novamid-1013G45-1-NA-PA6-GF45.php)

Physical Properties	Metric	English	Comments
Density	1.49 g/cc	0.0538 lb/in <sup>3</sup>	dry; ISO 1183
Moisture Absorption	1.90 %	1.90 %	Sim. To ISO 62
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0080 cm/cm	0.0080 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	150 MPa	21800 psi	cond; ISO 527-1/-2
	220 MPa	31900 psi	dry; ISO 527-1/-2
Elongation at Break	3.0 %	3.0 %	dry; ISO 527-1/-2
	6.0 %	6.0 %	cond; ISO 527-1/-2
Tensile Modulus	8.00 GPa	1160 ksi	cond; ISO 527-1/-2
	13.6 GPa	1970 ksi	dry; ISO 527-1/-2
Flexural Strength	230 MPa	33400 psi	cond; ISO 178
	355 MPa	51500 psi	dry; ISO 178
Flexural Modulus	8.80 GPa	1280 ksi	cond; ISO 178
	13.6 GPa	1970 ksi	dry; ISO 178
Charpy Impact Unnotched	11.0 J/cm <sup>2</sup>	52.3 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	13.0 J/cm <sup>2</sup>	61.9 ft-lb/in <sup>2</sup>	cond; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.80 J/cm <sup>2</sup>	8.57 ft-lb/in <sup>2</sup>	dry; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	2.70 J/cm <sup>2</sup>	12.8 ft-lb/in <sup>2</sup>	

Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	cond: ISO 179/1eA Comments
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Thermal Properties	Metric	English	Comments
Melting Point	220 °C	428 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	220 °C	428 °F	dry; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	209 °C	408 °F	dry; ISO 75-1/-2
Flammability, UL94	HB @Thickness 0.800 mm	HB @Thickness 0.0315 in	dry; IEC 60695-11-10

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+14 ohm-cm	2.00e+14 ohm-cm	dry; IEC 60093
Surface Resistance	3.00e+13 ohm	3.00e+13 ohm	cond; IEC 60093
Dielectric Constant	4.0 @Frequency 1.00e+6 Hz	4.0 @Frequency 1.00e+6 Hz	dry; IEC 60250
	5.0 @Frequency 100 Hz	5.0 @Frequency 100 Hz	dry; IEC 60250
Dielectric Strength	27.0 kV/mm	686 kV/in	dry; IEC 60243-1
Dissipation Factor	0.024 @Frequency 1.00e+6 Hz	0.024 @Frequency 1.00e+6 Hz	dry; IEC 60250
	0.028 @Frequency 100 Hz	0.028 @Frequency 100 Hz	dry; IEC 60250
Comparative Tracking Index	400 V	400 V	dry; IEC 60112

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