

## Toyobo GLAMIDE® NB-5550 Nylon/Olefin

Category : Polymer , Thermoplastic , Nylon

### Material Notes:

GLAMIDE® is very tough and exhibits high abrasion resistance. It has a high melting point and heat resistance, has well-balanced proportions of mechanical properties, performs self-distinguishing and a specific grade approved as UL94V-0 class is provided, and it exhibits excellent chemical resistance and oil resistance. Grade NB-5550 is a light weight, mineral-reinforced alloy of nylon and olefin with a good appearance and low water absorption.30

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Toyobo-GLAMIDE-NB-5550-NylonOlefin.php](http://www.lookpolymers.com/polymer_Toyobo-GLAMIDE-NB-5550-NylonOlefin.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.27 g/cc	1.27 g/cc	Absolute Drying; ASTM-D792
Filler Content	30 %	30 %	
Water Absorption	0.40 %	0.40 %	Absolute Drying; ASTM-D570
Moisture Absorption at Equilibrium	1.7 %	1.7 %	Absolute Drying; ASTM-D570
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	Absolute Drying
	@Thickness 1.00 mm	@Thickness 0.0394 in	
	0.012 - 0.016 cm/cm	0.012 - 0.016 in/in	Absolute Drying
	@Thickness 3.00 mm	@Thickness 0.118 in	
Melt Flow	5.0 g/10 min	5.0 g/10 min	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	118	118	Absolute Drying; ASTM-D785
Tensile Strength, Ultimate	28.0 MPa	4060 psi	Practical Use (Water Absorption 1.7%); ASTM-D638
	@Temperature 80.0 °C	@Temperature 176 °F	
	31.0 MPa	4500 psi	Absolute Drying; ASTM-D638
	@Temperature 80.0 °C	@Temperature 176 °F	
	55.0 MPa	7980 psi	Practical Use (Water Absorption 1.7%); ASTM-D638
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	66.0 MPa	9570 psi	Absolute Drying; ASTM-D638
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	100 MPa	14500 psi	Practical Use (Water Absorption 1.7%); ASTM-D638

Mechanical Properties	@Temperature -40.0 °C Metric	@Temperature -40.0 °F English	Comments
	110 MPa	16000 psi	Absolute Drying; ASTM-D638
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Elongation at Break	3.8 %	3.8 %	Absolute Drying; ASTM-D638
Flexural Strength	35.0 MPa	5080 psi	Practical Use (Water Absorption 1.7%); ASTM-D790
	@Temperature 80.0 °C	@Temperature 176 °F	
	50.0 MPa	7250 psi	Absolute Drying; ASTM-D790
	@Temperature 80.0 °C	@Temperature 176 °F	
	85.0 MPa	12300 psi	Practical Use (Water Absorption 1.7%); ASTM-D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	105 MPa	15200 psi	Absolute Drying; ASTM-D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	163 MPa	23600 psi	Practical Use (Water Absorption 1.7%); ASTM-D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	170 MPa	24700 psi	Absolute Drying; ASTM-D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Flexural Modulus	1.50 GPa	218 ksi	Practical Use (Water Absorption 1.7%); ASTM-D790
	@Temperature 80.0 °C	@Temperature 176 °F	
	3.20 GPa	464 ksi	Absolute Drying; ASTM-D790
	@Temperature 80.0 °C	@Temperature 176 °F	
	3.80 GPa	551 ksi	Practical Use (Water Absorption 1.7%); ASTM-D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	5.10 GPa	740 ksi	Absolute Drying; ASTM-D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	7.20 GPa	1040 ksi	Practical Use (Water Absorption 1.7%); ASTM-D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	8.00 GPa	1160 ksi	Absolute Drying; ASTM-D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Izod Impact, Notched	0.380 J/cm	0.712 ft-lb/in	Absolute Drying; ASTM-D256
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	0.500 J/cm	0.937 ft-lb/in	

Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	Absolute Drying; ASTM-D256 Comments
	0.650 J/cm @Temperature -40.0 °C	1.22 ft-lb/in @Temperature -40.0 °F	Practical Use (Water Absorption 1.7%); ASTM-D256
	2.00 J/cm @Temperature 23.0 °C	3.75 ft-lb/in @Temperature 73.4 °F	Practical Use (Water Absorption 1.7%); ASTM-D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	202 °C	396 °F	Absolute Drying; ASTM-D648
Deflection Temperature at 1.8 MPa (264 psi)	119 °C	246 °F	Absolute Drying; ASTM-D648
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+9 ohm-cm	1.00e+9 ohm-cm	Practical Use (Water Absorption 1.7%); ASTM-D257
	1.00e+12 ohm-cm	1.00e+12 ohm-cm	Absolute Drying; ASTM-D257
Dielectric Strength	23.0 kV/mm @Thickness 2.00 mm	584 kV/in @Thickness 0.0787 in	Practical Use (Water Absorption 1.7%); ASTM-D149
	30.0 kV/mm @Thickness 2.00 mm	762 kV/in @Thickness 0.0787 in	Absolute Drying; ASTM-D149
Arc Resistance	120 sec	120 sec	Practical Use (Water Absorption 1.7%); ASTM-D495
	130 sec	130 sec	Absolute Drying; ASTM-D495
Comparative Tracking Index	>= 600 V	>= 600 V	IEC Method

Processing Properties	Metric	English	Comments
Melt Temperature	240 - 290 °C	464 - 554 °F	
Mold Temperature	50.0 - 120 °C	122 - 248 °F	
Injection Pressure	50.0 MPa	7250 psi	

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