

DuPont Performance Polymers Zytel® 80G25HS BK117 Nylon 66 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 30% Glass Fiber Filled

Material Notes:

Zytel® 80G25HS BK117 is a 25% glass fiber reinforced, toughened, heat stabilized, black polyamide 66 resin for injection molding. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-80G25HS-BK117-Nylon-66-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.25 g/cc	0.0452 lb/in ³	DAM; ISO 1183
Filler Content	25 %	25 %	DAM
Linear Mold Shrinkage, Flow	0.0030 cm/cm @Thickness 2.00 mm	0.0030 in/in @Thickness 0.0787 in	DAM; ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	87.0 MPa @Temperature 23.0 °C	12600 psi @Temperature 73.4 °F	50%RH; ISO 527
	122 MPa @Temperature 23.0 °C	17700 psi @Temperature 73.4 °F	DAM; ISO 527
Elongation at Break	4.0 % @Temperature 23.0 °C	4.0 % @Temperature 73.4 °F	DAM; ISO 527
	8.0 % @Temperature 23.0 °C	8.0 % @Temperature 73.4 °F	50%RH; ISO 527
Tensile Modulus	4.70 GPa @Temperature 23.0 °C	682 ksi @Temperature 73.4 °F	50%RH; ISO 527
	6.90 GPa @Temperature 23.0 °C	1000 ksi @Temperature 73.4 °F	DAM; ISO 527
Flexural Modulus	6.00 GPa @Temperature 23.0 °C	870 ksi @Temperature 73.4 °F	DAM; ISO 178
Izod Impact, Notched (ISO)	12.0 kJ/m ² @Temperature -40.0 °C	5.71 ft-lb/in ² @Temperature -40.0 °F	50%RH; ISO 180/1A
	12.0 kJ/m ²	5.71 ft-lb/in ²	

Mechanical Properties	Metric @ Temperature -30.0 °C	English @ Temperature -22.0 °F	50%RH; ISO 180/1A Comments
	13.0 kJ/m²	6.19 ft-lb/in²	DAM; ISO 180/1A
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	13.0 kJ/m²	6.19 ft-lb/in²	DAM; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	20.0 kJ/m²	9.52 ft-lb/in²	DAM; ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	23.0 kJ/m²	10.9 ft-lb/in²	50%RH; ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	8.10 J/cm²	38.5 ft-lb/in²	50%RH; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	8.30 J/cm²	39.5 ft-lb/in²	DAM; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	8.70 J/cm²	41.4 ft-lb/in²	50%RH; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	8.90 J/cm²	42.4 ft-lb/in²	DAM; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	1.30 J/cm²	6.19 ft-lb/in²	50%RH; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.40 J/cm²	6.66 ft-lb/in²	DAM; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	2.20 J/cm²	10.5 ft-lb/in²	DAM; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	2.40 J/cm²	11.4 ft-lb/in²	50%RH; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	500 µm/m-°C	278 µin/in-°F	DAM; ASTM E 831
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	
CTE, linear, Transverse to Flow	120 µm/m-°C	66.7 µin/in-°F	DAM; ASTM E 831
	@Temperature 23.0 -	@Temperature 73.4 -	

Thermal Properties	55.0 °C Metric	131 °F English	Comments
Melting Point	262 °C	504 °F	10°C/min; DAM; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	258 °C	496 °F	DAM; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	240 °C	464 °F	DAM; ISO 75-1/-2

Processing Properties	Metric	English	Comments
Melt Temperature	295 °C	563 °F	DAM; Optimum
	285 - 305 °C	545 - 581 °F	DAM
Mold Temperature	50.0 - 100 °C	122 - 212 °F	DAM
	80.0 °C	176 °F	DAM; optimum
Drying Temperature	80.0 °C	176 °F	DAM
Dry Time	2.00 - 4.00 hour	2.00 - 4.00 hour	DAM
Moisture Content	<= 0.20 %	<= 0.20 %	DAM

Descriptive Properties	Value	Comments
Additive	Heat Stabilizer	DAM
	Impact Modifier	DAM
Appearance	Black Color	DAM
Drying Recommended	Yes, if moisture content of resin exceeds recommended level	DAM
Features	Chemical Resistance, Good	DAM
	Fatigue Resistant	DAM
	Fuel Resistant	DAM
	Grease Resistant	DAM
	Heat Aging Resistance, Good	DAM
	Heat Stabilized	DAM
	Impact Modified	DAM
	Impact Resistance, Good	DAM
	Oil Resistant	DAM
	Thermal Aging Resistance, Good	DAM

Descriptive Properties	Value Toughness, Good	Comments DAM
Filler	Glass fiber reinforcement	DAM
Forms	Pellets	DAM
Generic	Nylon 66	DAM
Material Status	Current	DAM
Part Marking Code	>PA66-IGF25<	ISO 11469; DAM
Polymer Family	Polyamide	DAM
Polymer Type	PA66	DAM
Processing Method	Injection Molding	DAM
Product Category	Glass Reinforced Resins	DAM
	Toughened Resins	DAM
Region Available - Global	Yes	DAM
Resin Identification	PA66-IGF25	ISO 1043; DAM
RoHS Compliance	Contact Manufacturer	DAM
Uses	Appliance Components	DAM
	Automotive Applications	DAM
	Electrical/Electronic Applications	DAM
	Industrial Applications	DAM

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