

## DuPont Performance Polymers Zytel® 8018HS NC010 Nylon 66 (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 10% Glass Fiber Filled

### Material Notes:

14% Glass Reinforced Toughened Heat Stabilized Polyamide 66 Zytel 8018HS NC010 is a 14% glass reinforced heat stabilized toughened polyamide 66 resin. Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Zytel-8018HS-NC010-Nylon-66-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-8018HS-NC010-Nylon-66-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.19 g/cc	0.0430 lb/in <sup>3</sup>	DAM; ISO 1183
Water Absorption	6.3 %	6.3 %	DAM; Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Moisture Absorption	1.90 %	1.90 %	DAM; Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Viscosity Test	145 cm <sup>3</sup> /g	145 cm <sup>3</sup> /g	DAM; ISO 307 1157 1628
Linear Mold Shrinkage, Flow	0.0080 cm/cm	0.0080 in/in	DAM; ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.0070 cm/cm	0.0070 in/in	DAM; ISO 294-4 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	58.0 MPa	8410 psi	50%RH; ISO 527-1/-2
	85.0 MPa	12300 psi	DAM; ISO 527-1/-2
Elongation at Break	9.0 %	9.0 %	DAM; ISO 527-1/-2
	14 %	14 %	50%RH; ISO 527-1/-2
Tensile Modulus	2.30 GPa	334 ksi	50%RH; ISO 527-1/-2
	4.20 GPa	609 ksi	DAM; ISO 527-1/-2
Flexural Modulus	2.00 GPa	290 ksi	50%RH; ISO 178
	3.60 GPa	522 ksi	DAM; ISO 178
Izod Impact, Notched (ISO)	13.0 kJ/m <sup>2</sup>	6.19 ft-lb/in <sup>2</sup>	DAM; ISO 180/1A
	18.0 kJ/m <sup>2</sup>	8.57 ft-lb/in <sup>2</sup>	50%RH; ISO 180/1A
	5.00 kJ/m <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	50%RH; ISO 180/1A

Mechanical Properties	@Temperature -40.0 °C Metric	@Temperature -40.0 °F English	Comments
	5.00 kJ/m <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	50%RH; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	7.00 kJ/m <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	DAM; ISO 180/1A
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	10.0 kJ/m <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	DAM; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched (ISO)	90.0 kJ/m <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	DAM; ISO 180/1U
	100 kJ/m <sup>2</sup>	47.6 ft-lb/in <sup>2</sup>	50%RH; ISO 180/1U
	70.0 kJ/m <sup>2</sup>	33.3 ft-lb/in <sup>2</sup>	50%RH; ISO 180/1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	90.0 kJ/m <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	DAM; ISO 180/1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	DAM; ISO 179/1eU
	10.0 J/cm <sup>2</sup>	47.6 ft-lb/in <sup>2</sup>	50%RH; ISO 179/1eU
	7.50 J/cm <sup>2</sup>	35.7 ft-lb/in <sup>2</sup>	50%RH; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	DAM; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	1.20 J/cm <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	DAM; ISO 179/1eA
	1.80 J/cm <sup>2</sup>	8.57 ft-lb/in <sup>2</sup>	50%RH; ISO 179/1eA
	0.400 J/cm <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	DAM; ISO 179/1eA
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	0.400 J/cm <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	50%RH; ISO 179/1eA
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	DAM; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	50%RH; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	50.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	27.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	DAM; ISO 11359-1/-2
CTE, linear, Transverse to Flow	118 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	65.6 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	DAM; ISO 11359-1/-2
Melting Point	263 $^{\circ}\text{C}$	505 $^{\circ}\text{F}$	DAM; 10 $^{\circ}\text{C}/\text{min}$ ; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	246 $^{\circ}\text{C}$	475 $^{\circ}\text{F}$	DAM; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	195 $^{\circ}\text{C}$	383 $^{\circ}\text{F}$	DAM; ISO 75-1/-2
Flammability, UL94	HB	HB	DAM; IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	DAM; IEC 60695-11-10
	@Thickness 0.800 mm	@Thickness 0.0315 in	
Oxygen Index	21 %	21 %	DAM; ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	580 V	580 V	DAM; IEC 60112

Descriptive Properties	Value	Comments
Additives	Release agent	
Delivery Form	Pellets	
Part Marking Code	>PA66-IGF14<	ISO 11469
Processing	Injection Moulding	
Regional Availability	North America	
	South and Central America	
Resin Identification	PA66-IGF14	
Special Characteristics	Heat stabilised or stable to heat	
UL recognition	UL	DAM

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