

DuPont Performance Polymers Zytel® FR7025V0F NC010 Nylon 66 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Unreinforced, Flame Retardant

Material Notes:

Zytel® FR7025V0F NC010 is a flame retardant polyamide 66 resin for injection molding. It does not contain elemental phosphorous, halogens or heavy metals. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-FR7025V0F-NC010-Nylon-66-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.15 g/cc	1.15 g/cc	DAM; ASTM D792
Density	1.16 g/cc	0.0419 lb/in ³	DAM; ISO 1183
Water Absorption	1.8 % @Temperature 23.0 °C	1.8 % @Temperature 73.4 °F	Immersion 24h; DAM; ISO 62, Similar to
Linear Mold Shrinkage	0.0080 cm/cm @Thickness 1.60 mm	0.0080 in/in @Thickness 0.0630 in	Flow; DAM
	0.0080 cm/cm @Thickness 1.60 mm	0.0080 in/in @Thickness 0.0630 in	Transverse; DAM
	0.011 cm/cm @Thickness 3.20 mm	0.011 in/in @Thickness 0.126 in	Flow; DAM
	0.011 cm/cm @Thickness 3.20 mm	0.011 in/in @Thickness 0.126 in	Transverse; DAM
Linear Mold Shrinkage, Flow	0.0090 cm/cm @Thickness 2.00 mm	0.0090 in/in @Thickness 0.0787 in	DAM; ISO 294-4
Linear Mold Shrinkage, Transverse	0.010 cm/cm @Thickness 2.00 mm	0.010 in/in @Thickness 0.0787 in	DAM; ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	80.0 MPa @Temperature 23.0 °C	11600 psi @Temperature 73.4 °F	DAM; ISO 527
Tensile Strength	89.6 MPa @Temperature 23.0 °C	13000 psi @Temperature 73.4 °F	DAM; ASTM D638
	90.0 MPa	13100 psi	

Tensile Strength, Yield Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	50mm/min; DAM; ISO 527 Comments
Elongation at Break	10 % @ Temperature 23.0 °C	10 % @ Temperature 73.4 °F	DAM; nominal; ISO 527
	10 % @ Temperature 23.0 °C	10 % @ Temperature 73.4 °F	DAM; ISO 527
	14 % @ Temperature 23.0 °C	14 % @ Temperature 73.4 °F	DAM; ASTM D638
Elongation at Yield	4.0 % @ Temperature 23.0 °C	4.0 % @ Temperature 73.4 °F	50mm/min; DAM; ISO 527
Tensile Modulus	3.75 GPa @ Temperature 23.0 °C	544 ksi @ Temperature 73.4 °F	DAM; ISO 527
Flexural Modulus	3.45 GPa @ Temperature 23.0 °C	500 ksi @ Temperature 73.4 °F	DAM; ASTM D790
	3.66 GPa @ Temperature 23.0 °C	531 ksi @ Temperature 73.4 °F	DAM; ISO 178
Izod Impact, Notched	0.430 J/cm @ Temperature 23.0 °C	0.806 ft-lb/in @ Temperature 73.4 °F	DAM; ASTM D256
Charpy Impact Unnotched	13.5 J/cm ² @ Temperature 23.0 °C	64.2 ft-lb/in ² @ Temperature 73.4 °F	DAM; ISO 179/1eU
Charpy Impact, Notched	0.300 J/cm ² @ Temperature -40.0 °C	1.43 ft-lb/in ² @ Temperature -40.0 °F	DAM; ISO 179/1eA
	0.370 J/cm ² @ Temperature 23.0 °C	1.76 ft-lb/in ² @ Temperature 73.4 °F	DAM; ISO 179/1eA

Thermal Properties	Metric	English	Comments
Melting Point	260 °C	500 °F	10°C/min; DAM; ISO 11357-1/-3
	264 °C	507 °F	DAM; ASTM D3418
Deflection Temperature at 0.46 MPa (66 psi)	230 °C	446 °F	DAM; ASTM D648
	235 °C	455 °F	DAM; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	70.0 °C	158 °F	DAM; ASTM D648

Thermal Properties	Metric	English	Comments 3-1/-2
UL RTI, Electrical	130 °C	266 °F	DAM; UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	130 °C	266 °F	
	@Thickness 3.00 mm	@Thickness 0.118 in	DAM; UL 746B
	130 °C	266 °F	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
UL RTI, Mechanical with Impact	75.0 °C	167 °F	DAM; UL 746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	75.0 °C	167 °F	
	@Thickness 1.50 mm	@Thickness 0.0591 in	DAM; UL 746B
	75.0 °C	167 °F	
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical without Impact	85.0 °C	185 °F	DAM; UL 746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	85.0 °C	185 °F	
	@Thickness 1.50 mm	@Thickness 0.0591 in	DAM; UL 746B
	85.0 °C	185 °F	
	@Thickness 3.00 mm	@Thickness 0.118 in	
Flammability, UL94	V-0	V-0	DAM; IEC 60695-11-10
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	DAM; IEC 60695-11-10
	V-0	V-0	
	@Thickness 3.00 mm	@Thickness 0.118 in	
	V-0	V-0	DAM; UL94
	@Thickness 3.00 mm	@Thickness 0.118 in	
	V-0	V-0	
	@Thickness 0.750 mm	@Thickness 0.0295 in	DAM; UL94
	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-0	V-0	DAM; UL94
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-0	V-0	

Thermal Properties	Metric	English	Comments
Glow Wire Test	@Thickness 3.00 mm	@Thickness 0.118 in	DAM; Ignition; IEC 60695-2-13
	775 °C	1430 °F	DAM; Ignition; IEC 60695-2-13
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	960 °C	1760 °F	DAM; IEC 60695-2-12
@Thickness 1.50 mm	@Thickness 0.0591 in		
	960 °C	1760 °F	DAM; IEC 60695-2-12
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	>= 600 V	>= 600 V	DAM; IEC 60112
	>= 600 V	>= 600 V	DAM; UL 746A
	@Thickness 3.00 mm, Temperature 23.0 °C	@Thickness 0.118 in, Temperature 73.4 °F	

Processing Properties	Metric	English	Comments
Melt Temperature	280 °C	536 °F	DAM; Optimum
	270 - 290 °C	518 - 554 °F	DAM
Mold Temperature	70.0 °C	158 °F	DAM; optimum
	50.0 - 90.0 °C	122 - 194 °F	DAM
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	Flame Retardant	DAM
	Lubricant	DAM
Appearance	Natural Color	DAM
Contains Flame Retardant	Yes	DAM
Drying Recommended	Yes, if moisture content of resin exceeds recommended level	DAM
Features	Crystalline, Semi	DAM

Descriptive Properties	Value	Comments
	Nucleated	DAM
	Processability, Good	DAM
Flame Retardant - Halogen/Red Phosphorus Free	Yes	DAM
Forms	Pellets	DAM
Generic	Nylon 66	DAM
Heat Stabilized	Yes	DAM
Material Status	Current	DAM
Part Marking Code	>PA66-FR(30)<	ISO 11469; DAM
Polymer Family	Polyamide	DAM
Polymer Type	PA66	DAM
Processing Method	Injection Molding	DAM
Product Category	Flame Retardant Resins	DAM
	Unreinforced Resins	DAM
Region Available - Global	Yes	DAM
Resin Identification	PA66-FR(30)	ISO 1043; DAM
RoHS Compliance	Contact Manufacturer	DAM
Ultrasonic Weldable	Yes	DAM
Uses	Connectors	DAM
	Electrical Parts	DAM
	Electrical/Electronic Applications	DAM

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