

DuPont™ Zytel® HTN

high performance polyamide resin

PRELIMINARY DATA

Zytel® HTNWRF51K20 NC010

Zytel® HTNWRF51K20 is a high performance polyamide resin modified with 20% Kevlar® aramid fiber for wear and abrasion resistance. It is also a PPA resin.

Property	Test Method	Units	Value
			DAM
Identification			
Resin Identification	ISO 1043		PA6T/XT-RF20
Part Marking Code	ISO 11469		>PA6T/XT-RF20<
Part Marking Code	SAE J1344		>PPA-RF20<
Mechanical			
Stress at Break	ISO 527	MPa (kpsi)	107 (15.5)
Strain at Break	ISO 527	%	3.2
Tensile Modulus	ISO 527	MPa (kpsi)	5300 (770)
Flexural Modulus	ISO 178	MPa (kpsi)	5000 (730)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	4
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²	20

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.
 ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.
 Test temperatures are 23°C unless otherwise stated.

During molding, use proper protective equipment and adequate ventilation. Avoid exposure to fumes and limit the hold up time and temperature of the resin in the machine. Purge degraded resin carefully with HDPE.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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Property	Test Method	Units	Value
			DAM
Thermal			
Deflection Temperature 1.80MPa	ISO 75-1/-2	°C (°F)	180 (356)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	300 (572)
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)	
-40 - 23°C (-40 - 73°F)			0.39 (0.22)
23 - 55°C (73 - 130°F)			0.44 (0.24)
55 - 125°C (131 - 257°F)			0.51 (0.28)
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)	
-40 - 23°C (-40 - 73°F)			0.54 (0.30)
23 - 55°C (73 - 130°F)			0.58 (0.32)
55 - 125°C (131 - 257°F)			0.74 (0.41)
Other			
Density	ISO 1183	kg/m ³ (g/cm ³)	1250 (1.25)
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			0.8
Parallel, 2.0mm			0.5
Processing			
Melt Temperature Range		°C (°F)	320-330 (610-630)
Melt Temperature Optimum		°C (°F)	325 (620)
Mold Temperature Range		°C (°F)	140-160 (280-320)
Mold Temperature Optimum		°C (°F)	150 (300)
Drying Time, Dehumidified Dryer		h	6-8
Drying Temperature		°C (°F)	100 (210)
Processing Moisture Content		%	<0.10

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