DuPont™ Zytel®

nylon resin

Zytel® 70G20HSL NC010

20% Glass Reinforced Nylon 66, Heat Stabilised & Lubricated

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Code	ISO 1043-1/-2/-3/-4		PA66-GF20	
Part Marking Code	ISO 11469		>PA66-GF20<	
Mechanical				
Stress at Break	ISO 527-1/-2	MPa	159	103
Strain at Break	ISO 527-1/-2	%	2.9	7
Tensile Modulus	ISO 527-1/-2	MPa	7300	5000
Notched Izod Impact Strength	ISO 180/1A	kJ/m^2		
-30°C (-30°F)			7	7
23°C (23°F)			8	9
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m^2		
-30°C (-30°F)			9	9
23°C (23°F)			9	9.5
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m^2		
-30°C (-30°F)			50	45
23°C (23°F)			55	75

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 unless otherwise stated.
Test temperatures are 23°C unless otherwise stated.

040507/040601

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Property	Test Method	Units	Value	
			DAM	50%RH
Thermal				
Deflection Temperature	ISO 75-1/-2	°C		
0.45MPa			260	
1.80MPa			242	
Melting Temperature	ISO 11357-1/-3	°C		
10°C/min			263	
CLTE, Normal	ISO 11359-1/-2	E-4/C		
23 - 55°C (73 - 130°F)			1.11	
CLTE, Parallel	ISO 11359-1/-2	E-4/C		
23 - 55°C (73 - 130°F)			0.35	
Vicat Softening Temperature	ISO 306	°C		
50N			255	
Electrical				
Surface Resistivity	IEC 60093	ohm	>1E15	1E12
Relative Permittivity	IEC 60250			
1E6 Hz			3.9	4.4
Volume Resistivity	IEC 60093	ohm m		1E9
1.0mm			>1E15	
Dissipation Factor	IEC 60250	E-4		
1E6 Hz			160	700
CTI	IEC 60112	V	400	
Flammability				
Flammability Classification	IEC 60695-11-10			
0.71mm			HB	
1.5mm			HB	
3.0mm			HB	

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Property	Test Method	Units	Value	
			DAM	50%RH
Flammability				
Flammability Classification	UL94			
0.71mm			HB	
1.5mm			HB	
3.0mm			HB	
High Amperage Arc Ignition Resistance	UL 746A	arcs		
3.0mm			120	
Hot Wire Ignition	UL 746A	s		
3.0mm			60	
Temperature Index				
RTI, Electrical	UL 746B	°C		
0.71mm			140	
1.5mm			140	
3.0mm			140	
RTI, Impact	UL 746B	°C		
0.71mm			125	
1.5mm			125	
3.0mm			125	
RTI, Strength	UL 746B	°C		
0.71mm			140	
1.5mm			140	
3.0mm			140	
Other				
Density	ISO 1183	kg/m^3	1290	
Ball Indention Hardness	ISO 2039-1	MPa		
H 961/30			250	155
Hardness, Rockwell	ISO 2039/2			
Scale M			102	85
Scale R			122	115

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Property	Test Method	Units	Value	
			DAM	50%RH
Other				
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			2.1	
Saturation, immersed			6.8	
Moulding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			1.2	
Parallel, 2.0mm			0.4	
Processing				
Melt Temperature Range		°C	285-305	
Melt Temperature Optimum		°C	295	
Mould Temperature Range		°C	70-120	
Mould Temperature Optimum		°C	100	
Drying Time, Dehumidified Dryer		h	2-4	
Drying Temperature		°C	80	
Processing Moisture Content		%	<0.20	

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