



Zytel®

nylon resin

Zytel® 70G33L BK031

Glass Reinforced Black Nylon 66 Resin

Zytel® 70G33L BK031 is a 33% glass reinforced black nylon 66 resin.

Property	Test Method	Units	Value
			DAM
Mechanical			
Tensile Strength	ASTM D 638	MPa (kpsi)	186 (27.0)
Stress at Break	ISO 527-1/-2	MPa (kpsi)	193 (28.0)
Elongation at Break	ASTM D 638	%	3
Strain at Break	ISO 527-1/-2	%	3
Tensile Modulus	ISO 527-1/-2	MPa (kpsi)	10500 (1520)
Flexural Modulus	ASTM D 790	MPa (kpsi)	8965 (1300)
Flexural Modulus	ISO 178	MPa (kpsi)	9100 (1320)
Flexural Strength	ASTM D 790	MPa (kpsi)	275 (40.0)
Izod Impact	ASTM D 256	J/m (ft lb/in)	107 (2.0)
Notched Izod Impact	ISO 180/1A	kJ/m2	
-40C (-40F)			9
23C (73F)			11
Unnotched Impact	ASTM D 4812	J/m (ft lb/in)	1065 (20)
Notched Charpy Impact	ISO 179/1eA	kJ/m2	
-40C (-40F)			9
23C (73F)			11
Thermal			
Heat Deflection Temperature	ASTM D 648	°C (°F)	
0.45MPa (66psi)			260 (500)
1.8MPa (264psi)			248 (478)
Deflection Temperature	ISO 75-1/-2	°C (°F)	
0.45MPa			261 (502)
1.80MPa			249 (480)
CLTE, Parallel	ASTM E 831	E-4/C (E-4/F)	
-40 - 23C (-40 - 73F)			0.24 (0.13)
23 - 55C (73 - 130F)			0.18 (0.10)
55 - 160C (130 - 320F)			0.13 (0.07)

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

Mechanical properties measured at 23°C (73°F) unless otherwise stated.

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990105/991020

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Product Information

Zytel® 70G33L BK031

Property	Test Method	Units	Value
			DAM
Thermal			
CLTE, Normal	ASTM E 831	E-4/C (E-4/F)	
-40 - 23C (-40 - 73F)			0.65 (0.36)
23 - 55C (73 - 130F)			0.83 (0.46)
55 - 160C (130 - 320F)			1.37 (0.76)
Melting Point	ASTM D 3418	°C (°F)	262 (504)
Melting Temperature	ISO 3146C	°C (°F)	263 (505)
Flammability			
Flammability Classification	UL94		
0.71mm			HB
1.5mm			HB
3.0mm			HB
Temperature Index			
RTI, Electrical	UL 746B	°C	
0.71mm			105
1.5mm			120
3.0mm			120
RTI, Mechanical with Impact	UL 746B	°C	
0.71mm			65
1.5mm			105
3.0mm			105
RTI, Mechanical without Impact	UL 746B	°C	
0.71mm			105
1.5mm			120
3.0mm			120
Other			
Specific Gravity	ASTM D 792		1.39
Density	ISO 1183	kg/m3 (g/cm3)	1390 (1.39)
Processing			
Melt Temperature Range		°C (°F)	290-310 (550-590)
Mold Temperature Range		°C (°F)	65-120 (150-250)
Processing Moisture Content		%	<0.20

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