



Zytel®

nylon resin

Zytel® 42A NC010

Nylon Resin

Zytel® 42A NC010 is a high viscosity molding and extrusion grade PA 66 resin, suitable for film and tubing applications.

Property	Test Method	Units	Value	
			DAM	50%RH
Mechanical				
Tensile Strength	ASTM D 638	MPa (kpsi)	85.5 (12.4)	77.2 (11.2)
Tensile Strength at Yield	ASTM D 638	MPa (kpsi)	85.5 (12.4)	59.3 (8.6)
Elongation at Break	ASTM D 638	%	90	>300
Elongation at Yield	ASTM D 638	%	5	30
Flexural Modulus	ASTM D 790	MPa (kpsi)	2827 (410)	1207 (175)
Notched Izod Impact	ASTM D 256	J/m (ft lb/in)	64 (1.2)	133 (2.5)
Thermal				
Heat Deflection Temperature 0.45MPa (66psi) 1.8MPa (264psi)	ASTM D 648	°C (°F)	210 (410) 65 (149)	
CLTE, Flow	ASTM D 696	E-4/K (E-4/F)	0.7 (0.4)	
Melting Point	ASTM D 3418	°C (°F)	263 (505)	
Electrical				
Volume Resistivity	ASTM D 257	ohm cm	1 E15	1 E13
Dielectric Constant	ASTM D 150			
1E2 Hz			4.0	8.0
1E3 Hz			3.9	7.0
1E6 Hz			3.6	4.6
Dissipation Factor	ASTM D 150			
1E2 Hz			0.01	0.20
1E3 Hz			0.02	0.20
1E6 Hz			0.02	0.10
Flammability				
UL94 Rating at Min. Thickness	UL94		HB	
UL94 Min. Thickness Tested	UL94	mm (in)	0.12 (3.0)	

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

Contact DuPont for MSDS, general guides and/or additional information about ventilation, handling, purging, drying, etc.

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Property	Test Method	Units	Value	
			DAM	50%RH
Other				
Hardness, Rockwell Scale M	ASTM D 785		80	60
Scale R			121	108
Taber Abrasion CS-17 Wheel, 1kg, 1000 cycles	ASTM D 1044	mg		4
Water Absorption Immersion 24hr	ASTM D 570	%	1.2	
Saturation			8.5	
Specific Gravity	ASTM D 792		1.14	
Mold Shrinkage Flow, 3.2mm (0.125in)		%	1.5	
Processing				
Melt Temperature Range		°C (°F)	280-305 (530-550)	
Processing Moisture Content		%	<0.05	

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