



Zytel®

nylon resin

Zytel® ST801 NC010A

Zytel® ST801 NC010A is a general purpose Super Tough nylon 66 resin. It offers outstanding impact resistance and high productivity.

Property	Test Method	Units	Value	
			50%RH	DAM
Mechanical				
Tensile Stress at 50% Strain 50mm/min	ISO 527-1/2	MPa	39	
Yield Stress 50mm/min	ISO 527-1/2	MPa	43	50
Nominal Strain at Break 50mm/min	ISO 527-1/2	%	>50	32
Strain at Break 50mm/min	ISO 527-1/2	%	>100	60
Yield Strain 50mm/min	ISO 527-1/2	%	37	5,7
Tensile Modulus 1mm/min	ISO 527-1/2	MPa	900	2000
Tensile Creep Modulus 1000h	ISO 899	MPa	750	
			1200	
Notched Izod Impact -30C	ISO 180/1A	kJ/m2	20	20
			100	80
Notched Charpy Impact -30C	ISO 179/1eA	kJ/m2	17	18
			115	80
Unnotched Charpy Impact -30C	ISO 179/1eU	kJ/m2	NB	NB
			NB	NB

Properties measured at 23°C unless otherwise stated.

Please refer to the Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

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Property	Test Method	Units	Value	
			50%RH	DAM
Thermal				
Deflection Temperature 0,45MPa	ISO 75-1/2	°C		132
1,80MPa				64
CLTE, Flow	ASTM E 831	E-4/C		1,2
CLTE, Transverse	ASTM E 831	E-4/C		0,9
Melting Temperature 10C/min	ISO 3146C	°C		263
Vicat Softening Temperature 50N	ISO 306	°C		207
Electrical				
Surface Resistivity	IEC 93	ohm	>1E15	1E15
Relative Permittivity 23C, 1E2 Hz	IEC 250		8	3,2
1E6 Hz			3,6	2,9
Volume Resistivity	IEC 93	ohm cm	1E13	1E14
Dissipation Factor 1E2 Hz	IEC 250	E-4	1800	80
1E6 Hz			550	140
Electric Strength	IEC 243-1	kV/mm	39	31
CTI	IEC 112	V		600
Flammability				
Flammability at 1.6mm Nominal UL94	UL94			HB
UL94 Rating at Min. Thickness	UL94			HB
UL94 Min. Thickness Tested	UL94	mm		0,8
Limited Oxygen Index	ISO 4589	%		20
Other				
Density	ISO 1183	kg/m3		1080
Hardness, Rockwell	ISO 2039/2		R89	R112
Humidity Absorption	ISO 62, Similar to	%		2,2
Water Absorption Equilibrium 50%RH	ISO 62, Similar to	%		6,7
Mould Shrinkage Flow	ISO 2577	%		1,7
Processing				
Melt Temperature Range		°C		288-293
Mould Temperature Range		°C		38-93
Drying Time, Dehumidified Dryer		h		2-4
Drying Temperature		°C		80

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