

Zytel® ST801AHS NC010

NYLON RESIN
DuPont Performance Polymers

Message:
Super Toughened, Heat Stabilized, Polyamide 66

General Information				
UL YellowCard		E41938-234521		
Additive	Heat Stabilizer			
	Mold Release			
	UV Stabilizer			
Features		Heat Stabilized		
Agency Ratings		UL Unspecified Rating		
Forms		Pellets		
Processing Method		Injection Molding		
Part Marking Code (ISO 11469)		>PA66-HI<		
Resin ID (ISO 1043)		PA66-HI		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.08	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.8	--	%	
Across Flow : 80°C, 48 hr	0.050	--	%	
Flow	2.0	--	%	
Flow : 80°C, 48 hr	0.050	--	%	
Water Absorption				
24 hr	1.1	--	%	ASTM D570
23°C, 24 hr, 2.00 mm	6.7	--	%	ISO 62
Equilibrium, 23°C, 2.00 mm, 50% RH	2.0	--	%	ISO 62
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 358/30)	104	--	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2000	900	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	52.0	--	MPa	
50% Strain	--	45.0	MPa	
Tensile Strain				ISO 527-2
Yield	4.0	--	%	
Break	--	> 50	%	

Nominal Tensile Strain at Break	50	--	%	ISO 527-2
Flexural Modulus	1900	800	MPa	ISO 178
Films	Dry	Conditioned	Unit	Test Method
Tensile Elongation - MD (Yield)	4.4	--	%	ISO 527-3
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	20	17	kJ/m ²	
23°C	80	110	kJ/m ²	
Charpy Unnotched Impact Strength (23°C)	No Break	No Break		ISO 179/1eU
Notched Izod Impact Strength				ISO 180/1A
-40°C	19	16	kJ/m ²	
23°C	75	95	kJ/m ²	
Tensile Impact Strength (23°C)	600	--	kJ/m ²	ISO 8256/1
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	157	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	62.0	--	°C	ISO 75-2/A
Glass Transition Temperature ¹	75.0	--	°C	ISO 11357-2
Melting Temperature ²	262	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	9.0E-5	--	cm/cm/°C	
Transverse	1.2E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	5.0E+12	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	2.7E+12	ohms·cm	IEC 60093
Electric Strength	24	24	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	3.50	6.20		
1 MHz	3.30	3.60		
Dissipation Factor				IEC 60250
100 Hz	5.0E-3	0.18		
1 MHz	0.011	0.040		
Comparative Tracking Index	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (1.00 mm)	24	--	mm/min	ISO 3795
Flammability Classification				IEC 60695-11-10, -20

0.750 mm	HB	--
1.50 mm	HB	--
NOTE		
1.	10°C/min	
2.	10°C/min	

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