

Zytel® ST801AHS NC010

NYLON RESIN

DuPont Performance Polymers

UPMold PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Super Toughened, Heat Stabilized, Polyamide 66

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Injection Molding (English) • Typical Processing for DuPont Engineering Polymers (English)
UL Yellow Card ²	• E41938-234521
Search for UL Yellow Card	• DuPont Performance Polymers • Zytel®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
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/cm ³	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
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	



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Impact	Dry	Conditioned	Unit	Test Method
Tensile Impact Strength (23°C)	600	--	kJ/m ²	ISO 8256/1
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 358/30)	104	--	MPa	ISO 2039-1
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 ⁴	75.0	--	°C	ISO 11357-2
Melting Temperature ⁴	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	--		

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 10°C/min



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Where to Buy

Supplier

DuPont Performance Polymers

Wilmington, DE USA

Telephone: 302-999-4592

Web: <http://plastics.dupont.com/>

Distributor

Biesterfeld Plastic GmbH

Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.

Telephone: +49-40-32008-0

Web: <http://www.biesterfeld-plastic.com/>

Availability: Algeria, Austria, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Greece, Hungary, Italy, Libyan Arab Jamahiriya, Luxembourg, Mauritania, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Tunisia, Turkey

CCC Plastics

Telephone: 800-465-6917

Web: <http://www.cccplastics.com/>

Availability: Canada

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.

Telephone: 800-894-4266

Web: <http://polyonedistribution.com/>

Availability: Global

