

Zytel® 153HSL NC010

NYLON RESIN
DuPont Performance Polymers

Message:
Unreinforced, Heat Stabilized, Polyamide 612

General Information				
UL YellowCard		E41938-234356		
Additive		Heat Stabilizer		
		Lubricant		
Features		Heat Stabilized		
		Lubricated		
Agency Ratings		UL Unspecified Rating		
Forms		Pellets		
Processing Method		Extrusion		
		Injection Molding		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
		Secant Modulus vs. Strain (ISO 11403-1)		
		Shear Stress vs. Shear Rate (ISO 11403-1)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Part Marking Code (ISO 11469)		>PA612<		
Resin ID (ISO 1043)		PA612		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.06	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.4	--	%	
Flow	1.3	--	%	
Water Absorption				ISO 62
23°C, 24 hr, 2.00 mm	3.0	--	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	1.3	--	%	
Viscosity Number (96% H2SO4 (Sulphuric Acid))	115	--	cm ³ /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2400	1600	MPa	ISO 527-2
Tensile Stress (Yield)	62.0	54.0	MPa	ISO 527-2
Tensile Strain (Yield)	4.4	19	%	ISO 527-2

Nominal Tensile Strain at Break	30	> 50	%	ISO 527-2
Flexural Modulus	2100	1450	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	5.0	4.0	kJ/m ²	
23°C	4.0	7.0	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		
23°C	No Break	No Break		
Notched Izod Impact Strength				ISO 180/1A
-30°C	5.0	5.0	kJ/m ²	
23°C	4.0	6.0	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	135	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	62.0	--	°C	ISO 75-2/A
Vicat Softening Temperature	180	--	°C	ISO 306/B50
Melting Temperature ¹	218	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.2E-4	--	cm/cm/°C	
Flow : -40 to 23°C	9.0E-5	--	cm/cm/°C	
Flow : 55 to 160°C	1.7E-4	--	cm/cm/°C	
Transverse	1.2E-4	--	cm/cm/°C	
Transverse : -40 to 23°C	9.0E-5	--	cm/cm/°C	
Transverse : 55 to 160°C	1.8E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+13	ohms·cm	IEC 60093
Electric Strength	30	30	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	3.60	5.30		
1 MHz	3.20	3.40		
Dissipation Factor				IEC 60250
100 Hz	0.014	0.10		
1 MHz	0.016	0.040		

Comparative Tracking Index	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.860 mm	HB	--		
1.50 mm	HB	--		
Oxygen Index	27	--	%	ISO 4589-2
NOTE				
1.	10°C/min			

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519
Phone: +86 13424755533
Email: sales@su-jiao.com
No. 215, Lianhe North Road, Fengxian District, Shanghai, China

