

Zytel® 103FHS NC010

NYLON RESIN
DuPont Performance Polymers

Message:
Unreinforced, Heat Stabilized, Polyamide 66

General Information				
UL YellowCard		E41938-234370		
Additive		Heat Stabilizer		
		Lubricant		
		Mold Release		
Features		Heat Stabilized		
		Lubricated		
Agency Ratings		UL Unspecified Rating		
Forms		Pellets		
Processing Method		Injection Molding		
Multi-Point Data		Shear Stress vs. Shear Rate (ISO 11403-1)		
		Tensile Modulus vs. Temperature (ISO 11403-1)		
		Tensile Modulus vs. Temperature, Dynamic (ISO 11403-1)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Part Marking Code (ISO 11469)		>PA66<		
Resin ID (ISO 1043)		PA66		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.3	--	%	
Flow	1.4	--	%	
Water Absorption				ISO 62
23°C, 24 hr, 2.00 mm	8.5	--	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	2.6	--	%	
Viscosity Number	145	--	cm ³ /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	3100	1400	MPa	ISO 527-2
Tensile Stress (Yield)	85.0	55.0	MPa	ISO 527-2
Tensile Strain (Yield)	4.5	25	%	ISO 527-2
Nominal Tensile Strain at Break	20	> 50	%	ISO 527-2

Flexural Modulus	2800	1300	MPa	ISO 178
Films	Dry	Conditioned	Unit	Test Method
Tensile Elongation - MD (Yield)	4.5	--	%	ISO 527-3
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	4.5	3.0	kJ/m ²	
23°C	5.5	11	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	350 kJ/m ²	No Break		
23°C	No Break	No Break		
Notched Izod Impact Strength				ISO 180/1A
-40°C	5.5	--	kJ/m ²	
-30°C	6.0	5.0	kJ/m ²	
23°C	5.5	11	kJ/m ²	
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	300 kJ/m ²	No Break		
23°C	300 kJ/m ²	No Break		
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	200	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	70.0	--	°C	ISO 75-2/A
Glass Transition Temperature ¹	60.0	--	°C	ISO 11357-2
Melting Temperature ²	262	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.0E-4	--	cm/cm/°C	
Transverse	1.1E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+14	1.0E+11	ohms · cm	IEC 60093
Dielectric Constant				ASTM D150
100 Hz	3.40	--		
1 kHz	3.40	--		
1 MHz	3.20	--		
Dissipation Factor				ASTM D150
100 Hz	1.0E-6	--		
1 kHz	1.0E-6	--		
1 MHz	2.0E-6	--		
Comparative Tracking Index (CTI) (3.00 mm)	PLC 0	--		UL 746

Comparative Tracking Index	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.710 mm	V-2	--		
1.50 mm	V-2	--		
Oxygen Index	28	--	%	ISO 4589-2
Fill Analysis	Dry	Conditioned	Unit	
Melt Density	1.01	--	g/cm ³	
Specific Heat Capacity of Melt	2790	--	J/kg/°C	
Thermal Conductivity of Melt	0.16	--	W/m/K	
Effective Thermal Diffusivity	0.0500	--	cSt	
NOTE				
1.	10°C/min			
2.	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

