

Staramide BG10H

Polyamide 6

Eurostar Engineering Plastics

Message:

Staramide BG10H is a Heat Stabilized, 50 % Glass Fiber Reinforced Polyamide 6 Injection Molding Resin

General Information			
UL YellowCard	E340012-100750686	E340012-100750687	
Filler / Reinforcement	Glass Fiber,50% Filler by Weight		
Additive	Heat Stabilizer		
Features	Heat Stabilized		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.55	g/cm ³	ISO 1183
Molding Shrinkage ¹			Internal Method
Across Flow	0.80 to 1.1	%	
Flow	0.10 to 0.20	%	
Water Absorption			ISO 62
Saturation, 23°C	4.5	%	
Equilibrium, 23°C, 50% RH	0.60	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	14000	MPa	ISO 527-2/1
Tensile Stress (Break)	224	MPa	ISO 527-2/5
Tensile Strain (Break)	3.2	%	ISO 527-2/5
Flexural Modulus ²	13300	MPa	ISO 178
Flexural Stress	320	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³			ISO 179/1eA
-30°C	15	kJ/m ²	
23°C	18	kJ/m ²	
Charpy Unnotched Impact Strength ⁴			ISO 179/1eU
-30°C	100	kJ/m ²	
23°C	100	kJ/m ²	
Notched Izod Impact Strength ⁵			ISO 180/1A
-40°C	14	kJ/m ²	
-30°C	15	kJ/m ²	
-20°C	16	kJ/m ²	

23°C	18	kJ/m ²	
Unnotched Izod Impact Strength ⁶			ISO 180/1U
-30°C	90	kJ/m ²	
23°C	90	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁷			
0.45 MPa, Unannealed, 100 mm Span	220	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	212	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	218	°C	ISO 306/B50
--	215	°C	ISO 306/B120
Ball Pressure Test ⁸ (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 60°C	1.2E-5	cm/cm/°C	
Transverse : 23 to 60°C	8.3E-5	cm/cm/°C	
RTI Elec	65.0	°C	UL 746
RTI Imp	65.0	°C	UL 746
RTI Str	65.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity ⁹	> 1.0E+16	ohms	IEC 60093
Volume Resistivity	> 1.0E+16	ohms·cm	IEC 60093
Electric Strength (3.20 mm, in Oil)	20	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	3.60		
60 Hz	3.60		
1 MHz	3.40		
Dissipation Factor			IEC 60250
50 Hz	6.1E-3		
60 Hz	6.1E-3		
1 MHz	0.016		
Comparative Tracking Index			IEC 60112
--	500	V	
Solution B	350	V	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.750 mm	HB		
3.00 mm	HB		
Glow Wire Flammability Index (2.00 mm)	650	°C	IEC 60695-2-12
Oxygen Index	25	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	75.0 to 85.0	°C	
Drying Time	4.0 to 6.0	hr	

Suggested Max Moisture	0.20	%
Rear Temperature	230 to 240	°C
Middle Temperature	240 to 250	°C
Front Temperature	240 to 270	°C
Processing (Melt) Temp	240 to 270	°C
Mold Temperature	60.0 to 80.0	°C

NOTE

1.	Tensile Bar
2.	2.0 mm/min
3.	80*10*4 sp=62mm
4.	80*10*4 sp=62mm
5.	80*10*4
6.	80*10*4
7.	120*10*4
8.	125°C ±2°C
9.	ROA

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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

