

Durethan® BG 30 X H3.0 000000

Polyamide 6
LANXESS GmbH

Message:
PA 6, 30 % glass fibers/glass spheres, injection molding, heat-aging stabilized, low tendency to warp

General Information				
UL YellowCard		E245249-100895223		
Filler / Reinforcement		Glass Bead\Glass Fiber,30% Filler by Weight		
Additive		Heat Stabilizer		
Features		Heat Stabilized		
		Low Warpage		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.36	--	g/cm³	ISO 1183
Apparent Density	0.70	--	g/cm³	ISO 60
Molding Shrinkage				ISO 2577
Across Flow : 280°C, 2.00 mm ¹	0.80	--	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.30	--	%	
Flow : 280°C, 2.00 mm ³	0.50	--	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.20	--	%	
Water Absorption				ISO 62
Saturation, 23°C	7.0	--	%	
Equilibrium, 23°C, 50% RH	2.2	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	185	75.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
23°C	6210	3100	MPa	ASTM D638
23°C	6400	3100	MPa	ISO 527-2/1
Tensile Strength				
Break, 23°C	121	62.7	MPa	ASTM D638
Break, 23°C	120	65.0	MPa	ISO 527-2/5
Tensile Elongation (Break, 23°C)	4.0	10	%	ASTM D638, ISO 527-2/5
Tensile Creep Modulus				ISO 899-1
1 hr	--	2400	MPa	

1000 hr	--	2000	MPa	
Flexural Modulus				
23°C	5800	2800	MPa	ASTM D790
23°C ⁵	5800	2800	MPa	ISO 178/A
Flexural Strength				
23°C	195	100	MPa	ASTM D790
3.5% Strain,23°C	170	80.0	MPa	ISO 178/A
23°C ⁶	185	100	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	5.0	8.0	%	ISO 178/A
Burning Behavior ⁸	passed	--		ISO 3795
ISO Shortname	PA 6,GHR,14-060, (GB+GF)30	--		ISO 1874
Residual Moisture Content	0.030 to 0.12		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	< 10	< 10	kJ/m ²	
-30°C	< 10	< 10	kJ/m ²	
23°C	< 10	10	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	40	45	kJ/m ²	
23°C	45	75	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
-40°C	< 10	< 10	kJ/m ²	
-30°C	< 10	< 10	kJ/m ²	
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	30	40	kJ/m ²	
23°C	35	60	kJ/m ²	
Multi-Axial Instrumented Impact Energy				ISO 6603-2
-30°C	1.70	--	J	
23°C	2.00	--	J	
Multi-Axial Instrumented Impact Peak Force				ISO 6603-2
-30°C	690	--	N	
23°C	700	--	N	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	210	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	190	--	°C	ISO 75-2/A

Vicat Softening Temperature	> 200	--	°C	ISO 306/B120
Melting Temperature ⁹	222	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	3.0E-5	--	cm/cm/°C	
Transverse : 23 to 55°C	9.0E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	--	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	--	ohms·cm	IEC 60093
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.50	--		
23°C, 1 MHz	4.00	--		
Dissipation Factor				IEC 60250
23°C, 100 Hz	0.027	--		
23°C, 1 MHz	0.022	--		
Comparative Tracking Index (Solution A)	375	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
1.60 mm	HB	--		
3.20 mm	HB	--		
Glow Wire Flammability Index (2.00 mm)	650	--	°C	IEC 60695-2-12
Injection	Dry	Unit	Test Method	
Drying Temperature - Dry Air Dryer	80.0		°C	
Drying Time - Dry Air Dryer	2.0 to 6.0		hr	
Processing (Melt) Temp	270 to 290		°C	
Mold Temperature	80.0 to 120		°C	
NOTE				
1.	60x60x2mm, 80°C MT, 600 bar			
2.	60x60x2mm			
3.	60x60x2mm, 80°C MT, 600 bar			
4.	60x60x2mm			
5.	2.0 mm/min			
6.	2.0 mm/min			
7.	2 mm/min			
8.	US-FMVSS302			
9.	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



WECHAT