

Durethan® BG 30 X H2.0 901510

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 Beads \Glass Fiber, 30% Filler by Weight		
Additive		heat stabilizer		
Features		Low warpage		
		Thermal Stability		
Agency Ratings		EC 1907/2006 (REACH)		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.35	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 2577
Vertical flow direction: 280°C, 3.00mm ¹	0.93	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 3.00mm ²	0.19	--	%	ISO 2577
Flow direction: 280°C, 3.00mm ³	0.42	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 3.00mm ⁴	0.090	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	7.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.2	--	%	ISO 62
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	6110	3010	MPa	ASTM D638
23°C	6300	3100	MPa	ISO 527-2/1
Tensile Strength				
Fracture, 23°C	117	57.9	MPa	ASTM D638
Fracture, 23°C	120	60.0	MPa	ISO 527-2/5
Tensile Elongation (Break, 23°C)				
	3.5	10	%	ASTM D638, ISO 527-2/5

Flexural Modulus				
23°C	5600	2700	MPa	ASTM D790
23°C ⁵	5800	2700	MPa	ISO 178/A
Flexural Strength				
23°C	199	95.1	MPa	ASTM D790
3.5% strain, 23°C	170	75.0	MPa	ISO 178/A
23°C ⁶	185	95.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	4.5	7.5	%	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 - 0.12		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	< 10	< 10	kJ/m ²	ISO 179/1eA
-30°C	< 10	< 10	kJ/m ²	ISO 179/1eA
23°C	< 10	< 10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	35	35	kJ/m ²	ISO 179/1eU
23°C	35	70	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-40°C	< 10	< 10	kJ/m ²	ISO 180/1A
-30°C	< 10	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	25	25	kJ/m ²	ISO 180/1U
23°C	30	50	kJ/m ²	ISO 180/1U
Multi-Axial Instrumented Impact Energy				ISO 6603-2
-30°C	2.00	--	J	ISO 6603-2
23°C	2.30	--	J	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force				ISO 6603-2
-30°C	690	--	N	ISO 6603-2
23°C	700	--	N	ISO 6603-2
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	210	--	°C	ISO 75-2/B
1.8 MPa, not annealed	190	--	°C	ISO 75-2/A
Vicat Softening Temperature				
	> 200	--	°C	ISO 306/B120
Melting Temperature ⁹	222	--	°C	ISO 11357-3

Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	3.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	9.0E-5	--	cm/cm/°C	ISO 11359-2
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
Dielectric Strength (23°C, 1.00 mm)	33	--	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.50	--		IEC 60250
23°C, 1 MHz	4.00	--		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	0.022	--		IEC 60250
23°C, 1 MHz	0.019	--		IEC 60250
Comparative Tracking Index (Solution A)	325	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
1.60 mm	HB	--		UL 94
3.20 mm	HB	--		UL 94
Glow Wire Flammability Index (2.00 mm)	650	--	°C	IEC 60695-2-12
Oxygen Index ¹⁰	23	--	%	ISO 4589-2
Injection	Dry	Unit	Test Method	
Drying Temperature - Dry Air Dryer	80.0		°C	
Drying Time - Dry Air Dryer	2.0 - 6.0		hr	
Processing (Melt) Temp	270 - 290		°C	
Mold Temperature	80.0 - 120		°C	
NOTE				
1.	150x105x3mm, 80°C MT, 400 bar			
2.	150x105x3mm			
3.	150x105x3mm, 80°C MT, 400 bar			
4.	150x105x3mm			
5.	2.0 mm/min			
6.	2.0 mm/min			
7.	2 mm/min			
8.	US-FMVSS302			
9.	10°C/min			
10.	Procedure A			

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

