

Durethan® BKV 30 G H2.0 900051

Polyamide 6

LANXESS Corporation

Message:

PA 6, 30 % glass fibers, injection molding, heat-aging stabilized, improved surface finish, improved resistance to weathering

General Information				
Filler / Reinforcement		Glass Fiber,30% Filler by Weight		
Additive		Heat Stabilizer		
Features		Good Heat Aging Resistance		
		Good Surface Finish		
Agency Ratings		EC 1907/2006 (REACH)		
Processing Method		Injection Molding		
Multi-Point Data		Shear Modulus vs. Temperature (ISO 11403-1)		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.36	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 294-4
Across Flow : 280°C, 2.00 mm ¹	0.58	--	%	
Across Flow : 120°C, 2 hr, 2.00 mm ²	0.16	--	%	
Flow : 280°C, 2.00 mm ³	0.27	--	%	
Flow : 120°C, 2 hr, 2.00 mm ⁴	0.060	--	%	
Water Absorption				ISO 62
Saturation, 23°C	6.5	--	%	
Equilibrium, 23°C, 50% RH	1.9	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	230	140	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
23°C	9910	7090	MPa	ASTM D638
23°C	10000	6200	MPa	ISO 527-2/1
Tensile Strength				
Break, 23°C	175	117	MPa	ASTM D638
Break, 23°C	180	110	MPa	ISO 527-2/5
Tensile Elongation				
Break, 23°C	3.0	6.0	%	ASTM D638

Break, 23°C	3.0	7.0	%	ISO 527-2/5
Flexural Modulus				
23°C	9120	6820	MPa	ASTM D790
23°C ⁵	9300	5700	MPa	ISO 178/A
Flexural Strength				
23°C	276	200	MPa	ASTM D790
3.5% Strain ⁶	--	145	MPa	ISO 178/A
23°C ⁷	270	170	MPa	ISO 178
Flexural Strain at Flexural Strength ⁸ (23°C)	4.0	6.2	%	
Burning Behavior ⁹	passed	--		ISO 3795
ISO Shortname	PA 6, GHR, 14-100, GF30	--		ISO 1874
Residual Moisture Content	0.030 to 0.12		%	Karl Fisher
Films	Dry	Conditioned	Unit	Test Method
Film Puncture Energy				ISO 6603-2
-- ¹⁰	2.20	--	J	
-- ¹¹	2.60	--	J	
Film Puncture Force				ISO 6603-2
-- ¹²	735	--	N	
-- ¹³	838	--	N	
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	13	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	60	60	kJ/m ²	
23°C	75	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	55	55	kJ/m ²	
23°C	65	70	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	215	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	195	--	°C	ISO 75-2/A

Vicat Softening Temperature	210	--	°C	ISO 306/B50, ISO 306/B120
Melting Temperature ¹⁴	221	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	3.0E-5	--	cm/cm/°C	
Transverse : 23 to 55°C	8.0E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+15	1.0E+13	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	34	31	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.30	7.00		
23°C, 1 MHz	4.00	4.30		
Dissipation Factor				IEC 60250
23°C, 100 Hz	8.0E-3	0.13		
23°C, 1 MHz	0.017	0.050		
Comparative Tracking Index				IEC 60112
Solution A	475	--	V	
Solution B	225	--	V	
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)	600	--	°C	IEC 60695-2-12
Oxygen Index ¹⁵	23	--	%	ISO 4589-2
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.	60x60x2; MT 80°C; 600 Bar			
2.	60x60x2			
3.	60x60x2; MT 80°C; 600 Bar			
4.	60x60x2			
5.	2.0 mm/min			
6.	2.0 mm/min			
7.	2.0 mm/min			
8.	Pull Rate: 2 mm/min; 50% RH			

9.	US-FMVSS302
10.	-30°C
11.	23°C
12.	-30°C
13.	23°C
14.	10°C/min
15.	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



WECHAT