

Durethan® BKV 15 G H2.0 900051

Polyamide 6

LANXESS GmbH

Message:

PA 6-Copolymer, 15 % glass fibers, injection molding, heat-aging stabilized, improved surface finish, weather stabilized

General Information				
Filler / Reinforcement		Glass fiber reinforced material, 15% filler by weight		
Additive		heat stabilizer		
Features		Copolymer		
		Good heat aging resistance		
		Excellent appearance		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.24	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				
Vertical flow direction: 280°C, 3.00mm ¹	0.67	--	%	ISO 2577
Vertical flow direction: 120°C, 2 hours, 3.00mm ²	0.21	--	%	ISO 294-4
Flow direction: 280°C, 3.00mm ³	0.34	--	%	ISO 2577
Flow direction: 120°C, 2 hours, 3.00mm ⁴	0.10	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	7.8	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.6	--	%	ISO 62
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	190	95.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
23°C	6310	3880	MPa	ASTM D638
23°C	6300	4000	MPa	ISO 527-2/1
Tensile Strength				
Fracture, 23°C	117	67.6	MPa	ASTM D638
Fracture, 23°C	120	70.0	MPa	ISO 527-2/5
Tensile Elongation (Break, 23°C)	3.0	11	%	ASTM D638, ISO 527-2/5
Flexural Modulus				

23°C	5700	3500	MPa	ASTM D790
23°C ⁵	5700	3500	MPa	ISO 178/A
Flexural Strength				
23°C	185	125	MPa	ASTM D790
3.5% strain ⁶	--	100	MPa	ISO 178/A
23°C ⁷	185	125	MPa	ISO 178
Flexural Strain at Flexural Strength ⁸ (23°C)	4.0	7.0	%	
Burning Behavior ⁹	passed	--		ISO 3795
ISO Shortname	PA 6/66, GHR, 14-060, GF15	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Films	Dry	Conditioned	Unit	Test Method
Film Puncture Energy				ISO 6603-2
-- ¹⁰	1.50	--	J	ISO 6603-2
-- ¹¹	2.00	--	J	ISO 6603-2
Film Puncture Force				ISO 6603-2
-- ¹²	505	--	N	ISO 6603-2
-- ¹³	560	--	N	ISO 6603-2
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	40	40	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	20	25	kJ/m ²	ISO 180/1U
23°C	25	35	kJ/m ²	ISO 180/1U
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	180	--	°C	ISO 75-2/A
8.0 MPa, not annealed	55.0	--	°C	ISO 75-2/C
Vicat Softening Temperature				
	200	--	°C	ISO 306/B50, ISO 306/B120
Melting Temperature ¹⁴	218	--	°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	8.0E-5	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+15	1.0E+13	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+13	1.0E+11	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	30	30	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.10	10.0		IEC 60250
23°C, 1 MHz	3.70	4.30		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	8.0E-3	0.22		IEC 60250
23°C, 1 MHz	0.018	0.070		IEC 60250
Comparative Tracking Index (Solution A)	375	--	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 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 - 6.0		hr	
Processing (Melt) Temp	260 - 290		°C	
Mold Temperature	80.0 - 100		°C	
NOTE				
1.	150x150x3; MT 80°C; 500 Bar			
2.	150x150x3			
3.	150x150x3; MT 80°C; 500 Bar			
4.	150x150x3			
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

