Durethan® BKV 50 000000

Polyamide 6

LANXESS Corporation

Message:

PA 6, 50 % glass fibers, injection molding

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight			
Agency Ratings	EC 1907/2006 (REACH)			
Processing Method	Injection molding			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (23°C)	1.57	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 2577
Vertical flow direction: 280°C, 3.00mm [1]	0.85	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 3.00mm [2]	0.050	--	%	ISO 2577
Flow direction: 280°C, 3.00mm [3]	0.16	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 3.00mm [4]	0.020	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	5.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.5	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	16300	9800	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	220	145	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	5.0	%	ISO 527-2/5
Tensile Creep Modulus				ISO 899-1
1 hr	--	8100	MPa	ISO 899-1
1000 hr	--	6600	MPa	ISO 899-1
Flexural Modulus [5] (23°C)	15100	9700	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% strain, 23°C	--	210	MPa	ISO 178/A
23°C [6]	365	235	MPa	ISO 178/A
Flexural Strain at Flexural Strength [7] (23°C)	3.0	5.0	%	ISO 178/A
ISO Shortname	PA 6, GR, 14-160, GF50	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**

Charpy Notched Impact Strength				ISO 179/1eA
-30°C	15	15	kJ/m²	ISO 179/1eA
23°C	20	25	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	85	85	kJ/m²	ISO 179/1eU
23°C	100	110	kJ/m²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	13	14	kJ/m²	ISO 180/1A
23°C	20	25	kJ/m²	ISO 180/1A
Multi-Axial Instrumented Impact Energy				ISO 6603-2
-30°C	6.00	--	J	ISO 6603-2
23°C	9.00	14.0	J	ISO 6603-2
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, not annealed	215	--	°C	ISO 75-2/B
1.8 MPa, not annealed	205	--	°C	ISO 75-2/A
Vicat Softening Temperature	> 200	--	°C	ISO 306/B120
Melting Temperature [8]	222	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	2.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	7.0E-5	--	cm/cm/°C	ISO 11359-2
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	40	35	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.00	--		IEC 60250
23°C, 1 MHz	4.00	5.00		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	0.010	--		IEC 60250
23°C, 1 MHz	0.015	0.14		IEC 60250
Comparative Tracking Index (Solution A)	525	--	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 [9]	24	--	%	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.	10°C/min
9.	Procedure A

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