Durethan® BKV 25 F30 000000

Polyamide 6

LANXESS GmbH

Message:

PA 6, 25 % glass fibers, injection molding, flame retardant

General Information				
UL YellowCard	E245249-100792620			
Filler / Reinforcement	Glass fiber reinforced material, 25% filler by weight			
Additive	Flame retardancy			
Features	Flame retardancy			
Processing Method	Injection molding			
Resin ID (ISO 1043)	PA GF FR (17)			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (23°C)	1.60	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 2577
Vertical flow direction: 280°C, 2.00mm [1]	0.60	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm [2]	0.10	--	%	ISO 2577
Flow direction: 280°C, 2.00mm [3]	0.30	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm [4]	0.10	--	%	ISO 2577
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	11000	7300	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	150	90.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.3	4.4	%	ISO 527-2/5
Flexural Modulus [5] (23°C)	10000	7000	MPa	ISO 178/A
Flexural Stress [6] (23°C)	230	155	MPa	ISO 178/A
Flexural Strain at Flexural Strength [7] (23°C)	2.5	4.0	%	ISO 178/A
Burning Behavior [8]	passed	--		ISO 3795
ISO Shortname	PA 6, GFHR, 14-110, GF25	--		ISO 1874
Admissible Residence Time at Tmax	> 10.0		min	
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	< 10	< 10	kJ/m²	ISO 179/1eA
23°C	10	15	kJ/m²	ISO 179/1eA

Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	45	50	kJ/m²	ISO 179/1eU
23°C	55	55	kJ/m²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	< 10	< 10	kJ/m²	ISO 180/1A
23°C	10	15	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	45	50	kJ/m²	ISO 180/1U
23°C	50	55	kJ/m²	ISO 180/1U
Multi-Axial Instrumented Impact Energy				ISO 6603-2
-30°C	1.90	--	J	ISO 6603-2
23°C	3.00	--	J	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force				ISO 6603-2
-30°C	900	--	N	ISO 6603-2
23°C	1000	--	N	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	205	--	°C	ISO 306/B120
Melting Temperature [9]	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	9.0E-5	--	cm/cm/°C	ISO 11359-2
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	4.1E+13	--	ohms	IEC 60093
Volume Resistivity (23°C)	3.4E+14	--	ohms·cm	IEC 60093
Comparative Tracking Index (Solution A)	400	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				UL 94
0.400 mm	V-0	--		UL 94
1.00 mm	V-0 5VA	--		UL 94
3.00 mm	V-0 5VA	--		UL 94

Glow Wire Flammability Index				IEC 60695-2-12
0.400 mm	960	--	°C	IEC 60695-2-12
0.800 mm	960	--	°C	IEC 60695-2-12
1.50 mm	960	--	°C	IEC 60695-2-12
3.00 mm	960	--	°C	IEC 60695-2-12
Glow Wire Ignition Temperature				IEC 60695-2-13
0.400 mm	850	--	°C	IEC 60695-2-13
0.800 mm	775	--	°C	IEC 60695-2-13
1.50 mm	775	--	°C	IEC 60695-2-13
3.00 mm	850	--	°C	IEC 60695-2-13

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 - 100		°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

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


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