

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			
Agency Ratings	EC 1907/2006 (REACH)			
Processing Method	Injection molding			
Resin ID (ISO 1043)	PA GF FR (17)			
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.60	--	g/cm ³	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/m ²	ISO 179/1eA

23°C	10	15	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	45	50	kJ/m ²	ISO 179/1eU
23°C	55	55	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	< 10	< 10	kJ/m ²	ISO 180/1A
23°C	10	15	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	45	50	kJ/m ²	ISO 180/1U
23°C	50	55	kJ/m ²	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
	V-0			
1.00 mm	5VA	--		UL 94

V-0				
3.00 mm	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			

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