

Durethan® BKV 30 FN00 000000

Polyamide 6

LANXESS Corporation

Message:

PA 6, 30 % glass fibers, injection molding, halogen free flame retardant

General Information				
UL YellowCard		E245249-525988		
Filler / Reinforcement		Glass fiber reinforced material, 30% filler by weight		
Additive		Flame retardancy		
Features		Halogen-free		
		Flame retardancy		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.43	--	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	23.0	--	cm³/10min	ISO 1133
Molding Shrinkage				ISO 2577
Vertical flow direction: 280°C, 2.00mm ¹	0.62	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.18	--	%	ISO 2577
Flow direction: 280°C, 2.00mm ³	0.22	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.080	--	%	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)	10800	6700	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	150	90.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	6.1	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	9800	6000	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% strain, 23°C	--	128	MPa	ISO 178/A
23°C ⁶	210	140	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	2.7	4.6	%	ISO 178/A
ISO Shortname	PA 6, GFHR, 14-110, GF30; ISO 4043-PA GF FR (30+40+72)			ISO 1874

Residual Moisture Content	0.030 - 0.070		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	< 10	--	kJ/m ²	ISO 179/1eA
23°C	< 10	--	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	60	65	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	< 10	--	kJ/m ²	ISO 180/1A
23°C	< 10	--	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	55	55	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	218	--	°C	ISO 75-2/B
1.8 MPa, not annealed	204	--	°C	ISO 75-2/A
Vicat Softening Temperature	210	--	°C	ISO 306/B120
Melting Temperature ⁸	224	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	2.2E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	8.1E-5	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Dielectric Strength (23°C, 1.00 mm)	37	--	kV/mm	IEC 60243-1
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.750 mm	V-0	--		UL 94
	V-0			
1.60 mm	5VA	--		UL 94
Glow Wire Flammability Index				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
0.800 mm	775	--	°C	IEC 60695-2-13
1.50 mm	775	--	°C	IEC 60695-2-13

3.00 mm	800	--	°C	IEC 60695-2-13
Oxygen Index ⁹	32	--	%	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	250 - 270		°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.	10°C/min
9.	Procedure A

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