

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,30% Filler by Weight			
Features	Flame Retardant			
	Halogen Free			
Processing Method	Injection Molding			
Resin ID (ISO 1043)	PA GF FR(30+40+72)			
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.43	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	23.0	--	cm ³ /10min	ISO 1133
Molding Shrinkage				ISO 294-4
Across Flow : 280°C, 2.00 mm ¹	0.62	--	%	
Across Flow : 120°C, 2 hr, 2.00 mm ²	0.18	--	%	
Flow : 280°C, 2.00 mm ³	0.22	--	%	
Flow : 120°C, 2 hr, 2.00 mm ⁴	0.080	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.0	--	%	
Equilibrium, 23°C, 50% RH	1.5	--	%	
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 ⁶				
3.5% Strain	--	128	MPa	ISO 178/A
23°C	210	140	MPa	ISO 178
Flexural Strain at Flexural Strength ⁷ (23°C)	2.7	4.6	%	
ISO Shortname	PA 6, GFHR, 14-110, GF30; ISO 4043-PA GF FR (30+40+72)			ISO 1874
Residual Moisture Content	0.030 to 0.070		%	Karl Fisher

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	< 10	--	kJ/m ²	
23°C	< 10	--	kJ/m ²	
Charpy Unnotched Impact Strength (23°C)	60	65	kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength				ISO 180/1A
-30°C	< 10	--	kJ/m ²	
23°C	< 10	--	kJ/m ²	
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, Unannealed	218	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	204	--	°C	ISO 75-2/A
Vicat Softening Temperature	210	--	°C	ISO 306/B120
Melting Temperature ⁸	224	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	2.2E-5	--	cm/cm/°C	
Transverse : 23 to 55°C	8.1E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Electric 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	--		
	V-0			
1.60 mm	5VA	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.800 mm	960	--	°C	
1.50 mm	960	--	°C	
3.00 mm	960	--	°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.800 mm	775	--	°C	
1.50 mm	775	--	°C	
3.00 mm	800	--	°C	

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 to 6.0		hr	
Processing (Melt) Temp	250 to 270		°C	
Mold Temperature	80.0 to 100		°C	
NOTE				
1.	60x60x2; MT 80°C; 600 Bar			
2.	60x60x2			
3.	60x60x2; MT 80°C; 600 Bar			
4.	60x60x2			
5.	2.0 mm/min			
6.	2.0 mm/min			
7.	Pull Rate: 2 mm/min; 50% RH			
8.	10°C/min			
9.	Procedure A			

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