

Durethan® BKV 20 FN01 000000

Polyamide 6

LANXESS GmbH

Message:

PA 6, 18 % glass fibers, injection molding, halogen free flame retardant

General Information				
UL YellowCard		E245249-101230843	E245249-102149257	
Filler / Reinforcement		Glass Fiber,18% Filler by Weight		
Additive		Flame Retardant		
Features		Flame Retardant		
		Halogen Free		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.34	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	37.0	--	cm ³ /10min	ISO 1133
Molding Shrinkage				ISO 2577
Across Flow : 260°C, 2.00 mm ¹	0.60	--	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.20	--	%	
Flow : 260°C, 2.00 mm ³	0.30	--	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.10	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.3	--	%	
Equilibrium, 23°C, 50% RH	1.6	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	7960	4500	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	110	60.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	4.9	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	7200	4200	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% Strain,23°C	--	95.0	MPa	
23°C ⁶	170	110	MPa	
Flexural Strain at Flexural Strength ⁷ (23°C)	3.2	6.0	%	ISO 178/A
ISO Shortname	PA 6, GFHR, 12-080, GF18; 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 Unnotched Impact Strength (23°C)	50	60	kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength (23°C)	< 10	12	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	40	45	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	200	--	°C	ISO 75-2/A
Vicat Softening Temperature	205	--	°C	ISO 306/B120
Melting Temperature ⁸	222	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	3.0E-5	--	cm/cm/°C	
Transverse : 23 to 55°C	9.0E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	8.6E+15	--	ohms	IEC 60093
Volume Resistivity (23°C)	5.3E+17	--	ohms · cm	IEC 60093
Comparative Tracking Index (CTI)	PLC 0	--		UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.750 mm	V-0	--		
1.50 mm	V-0	--		
3.00 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
0.750 mm	750	--	°C	
1.50 mm	750	--	°C	
3.00 mm	750	--	°C	
Oxygen Index ⁹	34	--	%	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		°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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