

Durethan® BKV 25 FN01 000000

Polyamide 6

LANXESS GmbH

Message:

PA 6, 25 % glass fibers, injection molding, halogen free flame retardant, improved flowability

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 25% filler by weight			
Additive	Flame retardancy			
Features	Good liquidity			
	Halogen-free			
	Flame retardancy			
Agency Ratings	EC 1907/2006 (REACH)			
Processing Method	Injection molding			
Resin ID (ISO 1043)	PA GF FR (30+40+72)			
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.39	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 2577
Vertical flow direction: 260°C, 2.00mm ¹	0.60	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.10	--	%	ISO 2577
Flow direction: 260°C, 2.00mm ³	0.30	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.10	--	%	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)	9500	5600	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	130	80.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.8	6.8	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	9200	5800	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% strain, 23°C	--	130	MPa	ISO 178/A
23°C ⁶	210	140	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	3.3	5.4	%	ISO 178/A
ISO Shortname	PA6, GFHR, 10-090, GF25	--		ISO 1874

Residual Moisture Content	0.030 - 0.070		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	60	65	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	< 10	15	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	55	60	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	202	--	°C	ISO 75-2/A
Vicat Softening Temperature	213	--	°C	ISO 306/B120
Ball Pressure Test (210°C)	Pass	--		IEC 60695-10-2
Melting Temperature ⁸	222	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	4.0E+15	--	ohms	IEC 60093
Volume Resistivity (23°C)	5.0E+15	--	ohms · cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	39	--	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 0	--		UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.750 mm	V-0	--		UL 94
	V-0			
1.50 mm	5VA	--		UL 94
	V-0			
3.00 mm	5VA	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.750 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
1.50 mm	775	--	°C	IEC 60695-2-13
3.00 mm	775	--	°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	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	

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