Durethan® AKV 15 FN 00 000000

Polyamide 66

LANXESS GmbH

Message:

PA 66, 12 % glass fibers, injection molding, halogen free flame retardant

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 12% filler by weight
Additive	Flame retardancy
Features	Halogen-free Flame retardancy
Agency Ratings	EC 1907/2006 (REACH)
Processing Method	Injection molding
Resin ID (ISO 1043)	PA GF FR (30+40)

Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.28	--	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (270°C/2.16 kg)	25.0	--	cm³/10min	ISO 1133
Molding Shrinkage				ISO 2577
Vertical flow direction: 270°C, 2.00mm [1]	1.0	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm [2]	0.10	--	%	ISO 2577
Flow direction: 270°C, 2.00mm [3]	0.60	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm [4]	0.10	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	5.5	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.8	--	%	ISO 62

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	6500	3600	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	90.0	50.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.3	5.5	%	ISO 527-2/5
Flexural Modulus [5] (23°C)	6400	3300	MPa	ISO 178/A
Flexural Stress [6] (23°C)	150	90.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength [7] (23°C)	3.3	5.5	%	ISO 178/A
ISO Shortname	PA 66, GFHR, 14-060, GF12	--		ISO 1874
Residual Moisture Content	0.030 - 0.070		%	Karl Fisher

Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	40	45	kJ/m²	ISO 179/1eU
Notched Izod Impact (23°C)	< 10	< 10	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	35	40	kJ/m²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	245	--	°C	ISO 75-2/B
1.8 MPa, not annealed	205	--	°C	ISO 75-2/A
Vicat Softening Temperature	225	--	°C	ISO 306/B120
Melting Temperature [8]	262	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 0	--		UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.400 mm	V-0	--		UL 94
0.750 mm	V-0	--		UL 94
1.50 mm	V-0	--		UL 94
3.00 mm	V-0	--		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
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	265 - 285		°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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