

Durethan® AKV 25 FN 00 000000

Polyamide 66

LANXESS GmbH

Message:

PA 66, 25 % glass, injection molding, halogen free flame retardant

General Information				
UL YellowCard		E245249-101377156	E245249-102164885	
Filler / Reinforcement		Glass Fiber,25% Filler by Weight		
Additive		Flame Retardant		
Features		Flame Retardant		
		Halogen Free		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.39	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (270°C/2.16 kg)	12.0	--	cm ³ /10min	ISO 1133
Molding Shrinkage				ISO 2577
Across Flow : 270°C, 2.00 mm ¹	0.90	--	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.10	--	%	
Flow : 270°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	4.6	--	%	
Equilibrium, 23°C, 50% RH	1.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	9600	5800	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	125	80.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	6.0	%	ISO 527-2/5
Nominal Tensile Strain at Break (23°C)	3.4	--	%	ISO 527-2/50
Flexural Modulus ⁵ (23°C)	9100	5700	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% Strain,23°C	--	120	MPa	
23°C ⁶	210	135	MPa	

Flexural Strain at Flexural Strength ⁷ (23°C)	3.3	5.8	%	ISO 178/A
ISO Shortname	PA 66, GFHR, 14-100, GF25; ISO-1043 PA GF FR (30+40)			ISO 1874
Residual Moisture Content	0.030 to 0.070		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	< 10	< 10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	60	60	kJ/m ²	
23°C	60	65	kJ/m ²	
Notched Izod Impact Strength (23°C)	< 10	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	55	65	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	225	--	°C	ISO 75-2/A
Vicat Softening Temperature	225	--	°C	ISO 306/B120
Ball Pressure Test (228°C)	Pass	--		IEC 60695-10-2
Melting Temperature ⁸	260	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.1E+16	--	ohms	IEC 60167
Volume Resistivity (23°C)	7.4E+15	--	ohms · cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	35	--	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 0	--		UL 746
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.400 mm	V-0	--		
0.750 mm	V-0	--		
1.50 mm	V-0	--		
3.00 mm	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.400 mm	960	--	°C	
0.800 mm	960	--	°C	
1.50 mm	960	--	°C	
3.00 mm	960	--	°C	
Glow Wire Ignition Temperature				IEC 60695-2-13

0.400 mm	775	--	°C	
0.750 mm	775	--	°C	
1.50 mm	775	--	°C	
3.00 mm	775	--	°C	
Oxygen Index ⁹	38	--	%	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	265 to 285		°C	
Mold Temperature	80.0 to 100		°C	

NOTE

- | | |
|----|------------------------------|
| 1. | 60x60x2mm, 120°C MT, 600 bar |
| 2. | 60x60x2mm |
| 3. | 60x60x2mm, 120°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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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

