

Durethan® DP AKV 30 FN00 000000

Polyamide 66

LANXESS GmbH

Message:

PA 66, 30 % glass fibers, injection molding, halogen free flame retardant

General Information				
UL YellowCard		E245249-607797	E245249-101229260	
Filler / Reinforcement		Glass fiber reinforced material, 30% filler by weight		
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)	1.42	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Vertical flow direction: 270°C, 2.00mm ¹	0.70	--	%	ISO 294-4
Vertical flow direction: 120°C, 2 hours, 2.00mm ²	0.10	--	%	ISO 294-4
Flow direction: 270°C, 2.00mm ³	0.20	--	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm ⁴	0.10	--	%	ISO 294-4
Water Absorption				ISO 62
Saturated, 23°C	4.4	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.4	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	10500	6500	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	135	85.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.8	5.4	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	9300	5600	MPa	ISO 178/A
Flexural Stress ⁶				
3.5% strain	--	120	MPa	ISO 178/A
23°C	215	135	MPa	ISO 178
Flexural Strain at Flexural Strength ⁷ (23°C)	3.1	5.2	%	
ISO Shortname	PA 66, GFHR, 14-100, GF30, ISO-1043-PA GF FR (30+40)			ISO 1874
Residual Moisture Content	0.030 - 0.070		%	Karl Fisher

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	< 10	--	kJ/m ²	ISO 179/1eA
23°C	< 10	--	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	60	--	kJ/m ²	ISO 179/1eU
23°C	65	--	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	< 10	--	kJ/m ²	ISO 180/1A
23°C	< 10	--	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	50	--	kJ/m ²	ISO 180/1U
23°C	55	57	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	> 250	--	°C	ISO 75-2/B
1.8 MPa, not annealed	224	--	°C	ISO 75-2/A
Vicat Softening Temperature	240	--	°C	ISO 306/B120
Melting Temperature ⁸	260	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	3.0E+16	4.0E+14	ohms	IEC 60093
Volume Resistivity (23°C)	5.0E+15	5.0E+12	ohms · cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	39	35	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	3.90	8.70		IEC 60250
23°C, 1 MHz	3.70	4.10		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	8.0E-3	0.13		IEC 60250
23°C, 1 MHz	0.012	0.070		IEC 60250
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.400 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
0.800 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
Glow Wire Ignition Temperature				IEC 60695-2-13
0.750 mm	725	--	°C	IEC 60695-2-13
1.50 mm	725	--	°C	IEC 60695-2-13
3.00 mm	725	--	°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	265 - 285		°C	
Mold Temperature	80.0 - 100		°C	
NOTE				
1.	60x60x2; WZ 80°C; 600 Bar			
2.	60x60x2			
3.	60x60x2; WZ 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			

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