

Durethan® AKV 30 HR H2.0 900116

Polyamide 66

LANXESS GmbH

Message:

PA 66, 30 % glass fibers, injection molding, heat-aging stabilized, hydrolysis stabilized

General Information				
UL YellowCard	E245249-542523			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight			
Additive	Heat Stabilizer			
	Hydrolysis Resistant			
Features	Heat Stabilized			
	Hydrolysis Resistant			
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.36	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 2577
Across Flow : 280°C, 3.00 mm ¹	1.3	--	%	
Across Flow : 120°C, 4 hr, 3.00 mm ²	0.070	--	%	
Flow : 290°C, 3.00 mm ³	0.35	--	%	
Flow : 120°C, 4 hr, 3.00 mm ⁴	0.040	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.5	--	%	
Equilibrium, 23°C, 50% RH	2.0	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	9500	6100	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	180	120	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	4.0	8.0	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	8400	5400	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% Strain,23°C	255	150	MPa	
23°C ⁶	260	180	MPa	
Flexural Strain at Flexural Strength ⁷ (23°C)	4.5	6.5	%	ISO 178/A
Burning Behavior ⁸	passed	--		ISO 3795

ISO Shortname	PA 66, GHWR, 14-090, GF30 --			ISO 1874
Residual Moisture Content	0.030 to 0.12		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	< 10	< 10	kJ/m ²	
-30°C	< 10	< 10	kJ/m ²	
23°C	10	20	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	65	75	kJ/m ²	
23°C	75	90	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
-40°C	< 10	< 10	kJ/m ²	
-30°C	< 10	< 10	kJ/m ²	
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	60	--	kJ/m ²	
23°C	70	--	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	250	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	245	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	125	--	°C	ISO 75-2/C
Vicat Softening Temperature	> 230	--	°C	ISO 306/B120
Melting Temperature ⁹	262	--	°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	1.0E+15	1.0E+13	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	1.0E+11	ohms·cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	35	30	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.00	12.0		
23°C, 1 MHz	3.60	4.50		
Dissipation Factor				IEC 60250
23°C, 100 Hz	8.0E-3	0.30		
23°C, 1 MHz	0.016	0.090		
Comparative Tracking Index (Solution A)	450	--	V	IEC 60112

Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
1.60 mm	HB	--		
3.20 mm	HB	--		
Glow Wire Flammability Index (2.00 mm)	650	--	°C	IEC 60695-2-12
Oxygen Index ¹⁰	25	--	%	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	280 to 300		°C	
Mold Temperature	80.0 to 120		°C	
NOTE				

1. 150x105x3mm, 80°C MT, 500 bar

2. 150x105x3mm

3. 150x105x3mm, 80°C MT, 500 bar

4. 150x105x3mm

5. 2.0 mm/min

6. 2.0 mm/min

7. 2 mm/min

8. US-FMVSS302

9. 10°C/min

10. Procedure A

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