Durethan® AKV 30 000000

Polyamide 66

LANXESS GmbH

Message:

PA 66, 30 % glass fibers, injection molding

General Information				
UL YellowCard		E245249-473556		
Filler / Reinforcement		Glass Fiber,30% Filler by Weight		
Processing Method		Injection Molding		
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (23°C)	1.36	--	g/cm³	ISO 1183
Apparent Density	0.70	--	g/cm³	ISO 60
Molding Shrinkage				ISO 2577
Across Flow : 280°C, 3.00 mm [1]	1.5	--	%	
Across Flow : 120°C, 4 hr, 3.00 mm [2]	0.050	--	%	
Flow : 280°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	--	%	
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Ball Indentation Hardness	230	130	MPa	ISO 2039-1
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus				
23°C	10300	6790	MPa	ASTM D638
23°C	10600	7000	MPa	ISO 527-2/1
Tensile Strength				
Break, 23°C	179	121	MPa	ASTM D638
Break, 23°C	185	125	MPa	ISO 527-2/5
Tensile Elongation (Break, 23°C)	3.0	6.0	%	ASTM D638, ISO 527-2/5
Flexural Modulus				
23°C	841	590	MPa	ASTM D790
23°C [5]	8400	5900	MPa	ISO 178/A
Flexural Strength				
23°C	290	200	MPa	ASTM D790
3.5% Strain,23°C	--	165	MPa	ISO 178/A

23°C [6]	290	200	MPa	ISO 178/A
Flexural Strain at Flexural Strength [7] (23°C)	4.0	6.0	%	ISO 178/A
ISO Shortname	PA 66, GR, 14-110, 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
-30°C	10	10	kJ/m²	
23°C	10	15	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	70	kJ/m²	
23°C	90	90	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
-40°C	< 10	< 10	kJ/m²	
-30°C	< 10	< 10	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, Unannealed	250	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	250	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	135	--	°C	ISO 75-2/C
Vicat Softening Temperature	> 230	--	°C	ISO 306/B120
Melting Temperature [8]	263	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	2.5E-5	--	cm/cm/°C	
Transverse : 23 to 55°C	1.0E-4	--	cm/cm/°C	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+14	1.0E+13	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	40	35	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.00	10.0		
23°C, 1 MHz	4.00	4.00		
Dissipation Factor				IEC 60250
23°C, 100 Hz	9.0E-3	0.27		
23°C, 1 MHz	0.018	0.080		
Comparative Tracking Index (Solution A)	600	--	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)	600	--	°C	IEC 60695-2-12
Oxygen Index [9]	23	--	%	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, 400 bar
2.	150x105x3mm
3.	150x105x3mm, 80°C MT, 400 bar
4.	150x105x3mm
5.	2.0 mm/min
6.	2.0 mm/min
7.	2 mm/min
8.	10°C/min
9.	Procedure A

Recommended distributors for this material

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