Durethan® AKV 35 H2.0 SR1 901510

Polyamide 66

LANXESS Corporation

Message:

PA 66, 35 % glass fibers, injection molding, heat-aging stabilized, improved surface finish

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 35% filler by weight			
Additive	heat stabilizer			
Features	Thermal Stability Excellent appearance			
Processing Method	Injection molding			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (23°C)	1.41	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 2577
Vertical flow direction: 300°C, 2.00mm [1]	1.0	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm [2]	0.090	--	%	ISO 2577
Flow direction: 300°C, 2.00mm [3]	0.32	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm [4]	0.070	--	%	ISO 2577
Vertical flow direction: 300°C, 3.00mm [5]	1.4	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 3.00mm [6]	0.040	--	%	ISO 2577
Flow direction: 300°C, 3.00mm [7]	0.35	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 3.00mm [8]	0.030	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	5.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.8	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	11200	7500	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	190	130	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	5.0	%	ISO 527-2/5
Tensile Creep Modulus				ISO 899-1
1 hr	7000	--	MPa	ISO 899-1
1000 hr	5800	--	MPa	ISO 899-1

Flexural Modulus [9] (23°C)	10500	6700	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% strain, 23°C	--	170	MPa	ISO 178/A
23°C [10]	295	200	MPa	ISO 178/A
Flexural Strain at Flexural Strength [11] (23°C)	4.0	6.0	%	ISO 178/A
ISO Shortname	PA 66, GHR, 14-110, GF35	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	10	kJ/m²	ISO 179/1eA
23°C	12	20	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	75	kJ/m²	ISO 179/1eU
23°C	80	90	kJ/m²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-40°C	< 10	< 10	kJ/m²	ISO 180/1A
-30°C	< 10	< 10	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	65	--	kJ/m²	ISO 180/1U
23°C	75	--	kJ/m²	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	250	--	°C	ISO 75-2/A
Vicat Softening Temperature	> 230	--	°C	ISO 306/B120
Melting Temperature [12]	263	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	2.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.0E-4	--	cm/cm/°C	ISO 11359-2
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+12	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	35	30	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.00	10.0		IEC 60250
23°C, 1 MHz	4.00	4.00		IEC 60250
Dissipation Factor				IEC 60250

23°C, 100 Hz	0.011	0.21		IEC 60250
23°C, 1 MHz	0.015	0.065		IEC 60250
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
1.60 mm	HB	--		UL 94
3.20 mm	HB	--		UL 94
Glow Wire Flammability Index (2.00 mm)	600	--	°C	IEC 60695-2-12
Oxygen Index [13]	23	--	%	ISO 4589-2
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	280 - 300		°C	
Mold Temperature	80.0 - 120		°C	

NOTE	
1.	60x60x2mm, 80°C MT, 600 bar
2.	60x60x2mm
3.	60x60x2mm, 80°C MT, 600 bar
4.	60x60x2mm
5.	150x105x3mm, 80°C MT, 400 bar
6.	150x105x3mm
7.	150x105x3mm, 80°C MT, 400 bar
8.	150x105x3mm
9.	2.0 mm/min
10.	2.0 mm/min
11.	2 mm/min
12.	10°C/min
13.	Procedure A

Recommended distributors for this material

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