

Durethan® AKV 35 HR H2.0 901510

Polyamide 66

LANXESS Corporation

Message:

PA 66, 35 % glass fibers, injection molding, heat-aging stabilized, hydrolysis stabilized

General Information				
Filler / Reinforcement		Glass fiber reinforced material, 35% filler by weight		
Additive		Hydrolysis resistance heat stabilizer		
Features		Thermal Stability		
Agency Ratings		EC 1907/2006 (REACH)		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity				
--	1.41	--	g/cm ³	ASTM D792
23°C	1.41	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 2577
Vertical flow direction: 300°C, 2.00mm ¹	1.1	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.090	--	%	ISO 2577
Flow direction: 300°C, 2.00mm ³	0.38	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.060	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	5.2	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.7	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
23°C ⁵	11000	6090	MPa	ASTM D638
23°C	11500	7800	MPa	ISO 527-2/1
Tensile Strength				
Fracture, 23°C	190	--	MPa	ASTM D638
Fracture, 23°C	195	135	MPa	ISO 527-2/5
Tensile Elongation				
Fracture, 23°C	3.0	--	%	ASTM D638
Fracture, 23°C	3.1	6.0	%	ISO 527-2/5
Flexural Modulus				

23°C	10000	--	MPa	ASTM D790
23°C ⁶	10700	7000	MPa	ISO 178/A
Flexural Strength				
23°C	290	--	MPa	ASTM D790
3.5% strain, 23°C	--	180	MPa	ISO 178/A
23°C ⁷	305	210	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁸ (23°C)	3.8	6.0	%	ISO 178/A
Burning Behavior ⁹ (> 1.00 mm)	passed	--		ISO 3795
ISO Shortname	PA 66, GHRW, 14-110, GF30	--		ISO 1874
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	< 10	< 10	kJ/m ²	ISO 179/1eA
-30°C	< 10	< 10	kJ/m ²	ISO 179/1eA
23°C	13	20	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	75	80	kJ/m ²	ISO 179/1eU
23°C	85	85	kJ/m ²	ISO 179/1eU
Notched Izod Impact				
23°C, 3.18 mm	140	--	J/m	ASTM D256
-30°C	10	10	kJ/m ²	ISO 180/1A
23°C	< 10	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	65	--	kJ/m ²	ISO 180/1U
23°C	75	--	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, unannealed, 39.9mm	> 249	--	°C	ASTM D648
0.45 MPa, not annealed	250	--	°C	ISO 75-2/B
1.8 MPa, not annealed	245	--	°C	ISO 75-2/A
1.8 MPa, annealing, 3.99mm	> 249	--	°C	ASTM D648
Vicat Softening Temperature				
--	> 230	--	°C	ISO 306/B50
--	255	--	°C	ISO 306/B120
Melting Temperature ¹⁰	262	--	°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	8.0E-5	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Dielectric Strength				IEC 60243-1
23°C, 1.00 mm	35	--	kV/mm	IEC 60243-1
23°C, 3.00 mm	40	35	kV/mm	IEC 60243-1
Dielectric Constant				IEC 60250
23°C, 50 Hz ¹¹	4.00	10.0		IEC 60250
23°C, 1 MHz ¹²	4.00	4.00		IEC 60250
23°C, 100 Hz	3.90	--		IEC 60250
23°C, 1 MHz	3.60	--		IEC 60250
Dissipation Factor				IEC 60250
23°C, 50 Hz	6.0E-3	1.0		IEC 60250
23°C, 100 Hz	0.010	--		IEC 60250
	4.0E-3			
23°C, 1 MHz	0.015	0.18		IEC 60250
Comparative Tracking Index (Solution A)	425	--	V	IEC 60112
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)	650	--	°C	IEC 60695-2-12
Oxygen Index ¹³	26	--	%	ISO 4589-2
Injection	Dry	Unit		
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.	1.0 mm/min			
6.	2.0 mm/min			
7.	2.0 mm/min			

8.	2 mm/min
9.	US-FMVSS302
10.	10°C/min
11.	Tinfoil Electrodes
12.	Tinfoil Electrodes
13.	Procedure A

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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



WECHAT