

Durethan® AKV 35 H2.0 901510

Polyamide 66

LANXESS GmbH

Message:

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

General Information	
UL YellowCard	E245249-473557
Filler / Reinforcement	Glass Fiber,35% Filler by Weight
Additive	Heat Stabilizer
Features	Heat Stabilized
Processing Method	Injection Molding
Multi-Point Data	Creep Modulus vs. Time (ISO 11403-1)
	Isochronous Stress vs. Strain (ISO 11403-1)
	Isothermal Stress vs. Strain (ISO 11403-1)
	Secant Modulus vs. Strain (ISO 11403-1)
	Shear Modulus vs. Temperature (ISO 11403-1)
Viscosity vs. Shear Rate (ISO 11403-2)	

Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.41	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 2577
Across Flow : 300°C, 2.00 mm ¹	0.91	--	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.070	--	%	
Flow : 300°C, 2.00 mm ³	0.37	--	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.050	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.0	--	%	
Equilibrium, 23°C, 50% RH	1.7	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	220	140	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
23°C	10300	6600	MPa	ASTM D638
23°C	11200	7500	MPa	ISO 527-2/1
Tensile Strength				

Break, 23°C	194	120	MPa	ASTM D638
Break, 23°C	200	125	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.1	6.4	%	ISO 527-2/5
Tensile Creep Modulus				ISO 899-1
1 hr	--	7000	MPa	
1000 hr	--	5800	MPa	
Flexural Modulus				
23°C	9300	6400	MPa	ASTM D790
23°C ⁵	10500	6500	MPa	ISO 178/A
Flexural Strength				
5.0% Strain, 23°C	280	160	MPa	ASTM D790
23°C	300	200	MPa	ASTM D790
3.5% Strain, 23°C	280	165	MPa	ISO 178/A
23°C ⁶	300	200	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	4.1	6.2	%	ISO 178/A
ISO Shortname	PA 66, GHR, 14-110, GF35	--		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/m ²	
23°C	12	17	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	75	kJ/m ²	
23°C	85	90	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
-30°C	10	10	kJ/m ²	
23°C	12	15	kJ/m ²	
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	65	--	kJ/m ²	
23°C	75	--	kJ/m ²	
Multi-Axial Instrumented Impact Energy				ISO 6603-2
-30°C	2.60	--	J	
23°C	3.20	5.90	J	
Multi-Axial Instrumented Impact Peak Force				ISO 6603-2
-30°C	830	--	N	
23°C	900	1260	N	
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
Vicat Softening Temperature				
--	230	--	°C	ISO 306/B50
--	250	--	°C	ISO 306/B120
Ball Pressure Test (254°C)	Pass	--		IEC 60695-10-2
Melting Temperature ⁸	263	--	°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+12	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	10.0		
23°C, 1 MHz	4.00	4.00		
Dissipation Factor				IEC 60250
23°C, 100 Hz	0.011	0.21		
23°C, 1 MHz	0.015	0.065		
Comparative Tracking Index (Solution A)	425	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate ⁹ (1.00 mm)	29	--	mm/min	ISO 3795
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 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.	60x60x2mm, 80°C MT, 600 bar			
2.	60x60x2mm			

3.	60x60x2mm, 80°C MT, 600 bar
4.	60x60x2mm
5.	2.0 mm/min
6.	2.0 mm/min
7.	2 mm/min
8.	10°C/min
9.	US-FMVSS302
10.	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