

Durethan® AKV 325 H2.0 901510

Polyamide 66

LANXESS GmbH

Message:

PA 66, 25 % glass fibers, Extrusion, blow molding, heat-aging stabilized, hydrolysis stabilized

General Information				
Filler / Reinforcement		Glass fiber reinforced material, 25% filler by weight		
Additive		Hydrolysis resistance heat stabilizer		
Features		Good heat aging resistance		
Agency Ratings		EC 1907/2006 (REACH)		
Processing Method		Extrusion		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.31	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 294-4
Vertical flow direction: 280°C, 2.00mm ¹	0.80	--	%	ISO 294-4
Vertical flow direction: 120°C, 2 hours, 2.00mm ²	0.10	--	%	ISO 294-4
Flow direction: 280°C, 2.00mm ³	0.80	--	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm ⁴	0.10	--	%	ISO 294-4
Water Absorption				ISO 62
Saturated, 23°C	6.6	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.0	--	%	ISO 62
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	190	90.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
23°C	8900	--	MPa	ASTM D638
23°C	8200	5000	MPa	ISO 527-2/1
Tensile Strength				
Fracture, 23°C	160	--	MPa	ASTM D638
Fracture, 23°C	150	100	MPa	ISO 527-2/5
Tensile Elongation				
Fracture, 23°C	3.5	--	%	ASTM D638
Fracture, 23°C	3.8	10	%	ISO 527-2/5

Flexural Modulus				
23°C	7240	--	MPa	ASTM D790
23°C ⁵	7200	4200	MPa	ISO 178/A
Flexural Strength				
3.5% strain, 23°C	220	--	MPa	ASTM D790
3.5% strain ⁶	220	105	MPa	ISO 178/A
23°C ⁷	240	140	MPa	ISO 178
Flexural Strain at Flexural Strength ⁸ (23°C)	4.7	7.0	%	
Burning Behavior ⁹	passed	--		ISO 3795
ISO Shortname	PA 66,EH, 14-080, GF25	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Films	Dry	Conditioned	Unit	Test Method
Film Puncture Energy				ISO 6603-2
-- ¹⁰	2.10	--	J	ISO 6603-2
-- ¹¹	2.60	--	J	ISO 6603-2
Film Puncture Force				ISO 6603-2
-- ¹²	747	--	N	ISO 6603-2
-- ¹³	862	--	N	ISO 6603-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	< 10	< 10	kJ/m ²	ISO 179/1eA
23°C	< 10	15	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	65	65	kJ/m ²	ISO 179/1eU
23°C	80	90	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	< 10	< 10	kJ/m ²	ISO 180/1A
23°C	10	15	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	60	55	kJ/m ²	ISO 180/1U
23°C	70	70	kJ/m ²	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	236	--	°C	ISO 75-2/A
Vicat Softening Temperature				
	> 240	--	°C	ISO 306/B120
Melting Temperature ¹⁴	261	--	°C	ISO 11357-3

Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	3.0E-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+14	--	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	--	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	32	--	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.20	--		IEC 60250
23°C, 1 MHz	3.80	--		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	0.010	--		IEC 60250
23°C, 1 MHz	0.018	--		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)	600	--	°C	IEC 60695-2-12
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.	60x60x2; MT 80°C; 600 Bar			
2.	60x60x2			
3.	60x60x2; MT 80°C; 600 Bar			
4.	60x60x2			
5.	2.0 mm/min			
6.	2.0 mm/min			
7.	2.0 mm/min			
8.	Pull Rate: 2 mm/min; 50% RH			
9.	US-FMVSS302			
10.	-30°C			
11.	23°C			
12.	-30°C			
13.	23°C			

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