

Durethan® BKV 50 H3.0 000000

Polyamide 6

LANXESS GmbH

Message:

PA 6, 50 % glass fibers, injection molding, heat-aging stabilized

General Information				
UL YellowCard		E245249-473600		
Filler / Reinforcement		Glass Fiber,50% Filler by Weight		
Additive		Heat Stabilizer		
Features		Heat Stabilized		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.57	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 2577
Across Flow : 280°C, 3.00 mm ¹	0.85	--	%	
Across Flow : 120°C, 4 hr, 3.00 mm ²	0.050	--	%	
Flow : 280°C, 3.00 mm ³	0.16	--	%	
Flow : 120°C, 4 hr, 3.00 mm ⁴	0.020	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.0	--	%	
Equilibrium, 23°C, 50% RH	1.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	16800	10200	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	225	140	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	5.0	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	15500	9900	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	360	230	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	3.0	5.0	%	ISO 178/A
Burning Behavior ⁸ (> 1.00 mm)	passed	--		ISO 3795
ISO Shortname	PA 6, GHR, 14-160, GF50	--		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	15	15	kJ/m ²	
23°C	20	25	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	90	90	kJ/m ²	
23°C	100	110	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
-30°C	15	15	kJ/m ²	
23°C	20	25	kJ/m ²	
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	95	95	kJ/m ²	
23°C	95	100	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	215	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	205	--	°C	ISO 75-2/A
Vicat Softening Temperature	> 200	--	°C	ISO 306/B50, ISO 306/B120
Melting Temperature ⁹	222	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	2.0E-5	--	cm/cm/°C	
Transverse : 23 to 55°C	7.0E-5	--	cm/cm/°C	
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)	650	--	°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 to 6.0		hr	
Processing (Melt) Temp	270 to 290		°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.	US-FMVSS302
9.	10°C/min

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