

Durethan® BKV 60 H2.0 EF DUS060 900116

Polyamide 6

LANXESS GmbH

Message:

PA 6, 60 % glass fibers, injection molding, improved flowability, heat-aging stabilized

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 60% filler by weight			
Additive	heat stabilizer			
Features	Good liquidity			
	Thermal Stability			
Agency Ratings	EC 1907/2006 (REACH)			
Processing Method	Injection molding			
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.70	--	g/cm ³	ISO 1183
Apparent Density	0.75	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 2577
Vertical flow direction: 280°C, 2.00mm ¹	0.40	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.060	--	%	ISO 2577
Flow direction: 280°C, 2.00mm ³	0.32	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.030	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	3.6	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.3	--	%	ISO 62
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	255	155	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	20000	12000	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	225	145	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.4	3.5	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	19300	12800	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	365	235	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	2.8	3.6	%	ISO 178/A
ISO Shortname	PA 6, GHR, 10-220, GF60	--		ISO 1874
Residual Moisture Content	0.060 - 0.20		%	Karl Fisher

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	16	--	kJ/m ²	ISO 179/1eA
23°C	16	--	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	90	90	kJ/m ²	ISO 179/1eU
23°C	90	90	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	16	--	kJ/m ²	ISO 180/1A
23°C	16	20	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	80	80	kJ/m ²	ISO 180/1U
23°C	80	80	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	220	--	°C	ISO 75-2/B
1.8 MPa, not annealed	213	--	°C	ISO 75-2/A
Vicat Softening Temperature	210	--	°C	ISO 306/B120
Melting Temperature ⁸	222	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	1.2E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	7.5E-5	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (23°C)	5.8E+14	8.0E+11	ohms · cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	33	33	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	5.30	11.2		IEC 60250
23°C, 1 MHz	4.70	5.10		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	0.016	0.21		IEC 60250
23°C, 1 MHz	0.018	0.065		IEC 60250
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
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	270 - 290		°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.	2.0 mm/min	
6.	2.0 mm/min	
7.	2 mm/min	
8.	10°C/min	

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