

Durethan® BKV 30 H2.0 EF 901510

Polyamide 6

LANXESS GmbH

Message:

PA 6, 30 % glass fibers, injection molding, improved flowability, heat-aging stabilized

General Information				
Filler / Reinforcement		Glass fiber reinforced material, 30% 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)	1.35	--	g/cm ³	ISO 1183
Apparent Density	0.60	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 2577
Vertical flow direction: 280°C, 2.00mm ¹	0.81	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.10	--	%	ISO 2577
Flow direction: 280°C, 2.00mm ³	0.29	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.050	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	7.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.1	--	%	ISO 62
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	193	--	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
23°C	8730	--	MPa	ASTM D638
23°C	9400	5500	MPa	ISO 527-2/1
Tensile Strength				
Fracture, 23°C	165	--	MPa	ASTM D638
Fracture, 23°C	170	100	MPa	ISO 527-2/5
Tensile Elongation				
Fracture, 23°C	3.2	--	%	ASTM D638
Fracture, 23°C	3.0	5.8	%	ISO 527-2/5

Flexural Modulus				
23°C	8000	--	MPa	ASTM D790
23°C ⁵	8400	5000	MPa	ISO 178/A
Flexural Strength				
23°C	260	--	MPa	ASTM D790
3.5% strain, 23°C	255	140	MPa	ISO 178/A
23°C ⁶	260	170	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	3.6	5.5	%	ISO 178/A
Burning Behavior ⁸	passed	--		ISO 3795
ISO Shortname	PA 6, GHR, 10-090, GF30	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				
				ISO 179/1eA
-30°C	< 10	--	kJ/m ²	ISO 179/1eA
23°C	11	15	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				
				ISO 179/1eU
-30°C	55	55	kJ/m ²	ISO 179/1eU
23°C	65	80	kJ/m ²	ISO 179/1eU
Notched Izod Impact				
				ISO 180/1A
-30°C	< 10	--	kJ/m ²	ISO 180/1A
23°C	10	20	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				
				ISO 180/1U
-30°C	55	50	kJ/m ²	ISO 180/1U
23°C	60	75	kJ/m ²	ISO 180/1U
Multi-Axial Instrumented Impact Energy				
				ISO 6603-2
-30°C	2.10	--	J	ISO 6603-2
23°C	2.20	--	J	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force				
				ISO 6603-2
-30°C	744	--	N	ISO 6603-2
23°C	803	--	N	ISO 6603-2
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	219	--	°C	ISO 75-2/B
1.8 MPa, not annealed	210	--	°C	ISO 75-2/A
8.0 MPa, not annealed	150	--	°C	ISO 75-2/C
Vicat Softening Temperature				
	210	--	°C	ISO 306/B120
Ball Pressure Test (210°C)	Pass	--		IEC 60695-10-2

Melting Temperature ⁹	221	--	°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	1.0E-4	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Dielectric Strength (23°C, 1.00 mm)	33	25	kV/mm	IEC 60243-1
Comparative Tracking Index (Solution A)	400	--	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	250 - 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. US-FMVSS302
9. 10°C/min

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