Durethan® BKV 30 H2.0 000000

Polyamide 6

LANXESS GmbH

Message:

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

General Information				
Filler / Reinforcement	Glass Fiber,30% Filler by Weight			
Additive	Heat Stabilizer			
Features	Heat Stabilized			
Processing Method	Injection Molding			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Specific Gravity				
	1.36			
--	1.36	--	g/cm³	ASTM D792
23°C	1.38	--	g/cm³	ISO 1183
Apparent Density	0.70	--	g/cm³	ISO 60
Water Absorption				ISO 62
Saturation, 23°C	7.0	--	%	
Equilibrium, 23°C, 50% RH	2.1	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus				
23°C [1]	9200	5600	MPa	ASTM D638
23°C	9600	5900	MPa	ISO 527-2/1
Tensile Strength				
Break, 23°C	180	100	MPa	ASTM D638
Break, 23°C	170	100	MPa	ISO 527-2/5
Tensile Elongation				
Break, 23°C	3.0	6.0	%	ASTM D638
Break, 23°C	3.5	6.5	%	ISO 527-2/5
Tensile Creep Modulus (1000 hr)	--	4100	MPa	ISO 899-1
Flexural Modulus				
23°C	8300	5000	MPa	ASTM D790
23°C [2]	8600	5100	MPa	ISO 178/A
Flexural Strength				
23°C	280	170	MPa	ASTM D790
3.5% Strain,23°C	265	140	MPa	ISO 178/A
23°C [3]	280	170	MPa	ISO 178/A

Flexural Strain at Flexural Strength [4] (23°C)	4.0	6.0	%	ISO 178/A
Burning Behavior [5] (> 1.00 mm)	passed	--		ISO 3795
ISO Shortname	PA 6, MHR, 14-100, GF30	--		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/m²	
23°C	15	20	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	70	kJ/m²	
23°C	80	95	kJ/m²	
Notched Izod Impact				
-40°C, 3.18 mm	100	100	J/m	ASTM D256
23°C, 3.18 mm	120	150	J/m	ASTM D256
-30°C	< 10	< 10	kJ/m²	ISO 180/1A
23°C	15	20	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	65	65	kJ/m²	
23°C	75	80	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				
0.45 MPa, Unannealed, 39.9 mm	215	--	°C	ASTM D648
0.45 MPa, Unannealed	215	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	200	--	°C	ISO 75-2/A
1.8 MPa, Annealed, 3.99 mm	200	--	°C	ASTM D648
8.0 MPa, Unannealed	110	--	°C	ISO 75-2/C
Vicat Softening Temperature	> 200	--	°C	ISO 306/B50, ISO 306/B120
Melting Temperature [6]	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	8.0E-5	--	cm/cm/°C	
RTI Elec				UL 746
0.830 mm	120	--	°C	
1.50 mm	120	--	°C	
RTI Imp				UL 746
0.830 mm	90.0	--	°C	

1.50 mm	95.0	--	°C	
RTI Str				UL 746
0.830 mm	130	--	°C	
1.50 mm	130	--	°C	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Electric Strength (23°C, 3.00 mm)	40	35	kV/mm	IEC 60243-1
Dielectric Constant [7]				IEC 60250
23°C, 50 Hz	4.00	15.0		
23°C, 1 MHz	4.00	5.00		
Dissipation Factor				IEC 60250
23°C, 50 Hz	5.0E-3	0.50		
23°C, 1 MHz	0.015	0.16		
Arc Resistance [8]	--	76.0	sec	ASTM D495
Comparative Tracking Index	--	400	V	ASTM D3638
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				UL 94
0.830 mm	HB	--		
1.50 mm	HB	--		
1.60 mm	HB	--		
3.00 mm	HB	--		
3.20 mm	HB	--		

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.	1.0 mm/min
2.	2.0 mm/min
3.	2.0 mm/min
4.	2 mm/min
5.	US-FMVSS302
6.	10°C/min
7.	Tinfoil Electrodes
8.	Tungsten Electrodes

Recommended distributors for this material

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