Durethan® BKV 50 H EF DUS022 900116

Polyamide 6

LANXESS GmbH

Message:

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

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight			
Additive	heat stabilizer			
Features	Good liquidity Good heat aging resistance			
Processing Method	Injection molding			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (23°C)	1.57	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Vertical flow direction: 280°C, 2.00mm [1]	0.70	--	%	ISO 294-4
Vertical flow direction: 120°C, 2 hours, 2.00mm [2]	0.070	--	%	ISO 294-4
Flow direction: 280°C, 2.00mm [3]	0.20	--	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm [4]	0.020	--	%	ISO 294-4
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	16200	9500	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	205	128	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.3	4.3	%	ISO 527-2/5
Flexural Modulus [5] (23°C)	15000	9700	MPa	ISO 178/A
Flexural Stress [6]				
3.5% strain	--	197	MPa	ISO 178/A
23°C	320	203	MPa	ISO 178
Flexural Strain at Flexural Strength [7] (23°C)	2.9	4.0	%	
ISO Shortname	PA 6, GHR, 10-160, GF50	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Films	**Dry**	**Conditioned**	**Unit**	**Test Method**
Film Puncture Energy [8]	3.60	5.80	J	ISO 6603-2
Film Puncture Force [9]	1220	1260	N	ISO 6603-2
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA

-30°C	10	--	kJ/m²	ISO 179/1eA
23°C	13	--	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	80	--	kJ/m²	ISO 179/1eU
23°C	85	80	kJ/m²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	11	--	kJ/m²	ISO 180/1A
23°C	14	20	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	75	--	kJ/m²	ISO 180/1U
23°C	80	70	kJ/m²	ISO 180/1U

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	215	--	°C	ISO 75-2/B
1.8 MPa, not annealed	207	--	°C	ISO 75-2/A
Melting Temperature [10]	220	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	1.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	8.0E-5	--	cm/cm/°C	ISO 11359-2

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.	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.	Pull Rate: 2 mm/min; 50% RH
8.	23°C
9.	23°C
10.	10°C/min

Recommended distributors for this material

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