

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		
		Thermal Stability		
Agency Ratings		EC 1907/2006 (REACH)		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.57	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 2577
Vertical flow direction: 280°C, 2.00mm ¹	0.70	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.070	--	%	ISO 2577
Flow direction: 280°C, 2.00mm ³	0.20	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.020	--	%	ISO 2577
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				ISO 178/A
3.5% strain, 23°C	--	197	MPa	ISO 178/A
23°C ⁶	320	203	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	2.9	4.0	%	ISO 178/A
ISO Shortname	PA 6, GHR, 10-160, GF50	--		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	13	--	kJ/m ²	ISO 179/1eA

Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	80	--	kJ/m ²	ISO 179/1eU
23°C	85	80	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	11	--	kJ/m ²	ISO 180/1A
23°C	14	20	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	75	--	kJ/m ²	ISO 180/1U
23°C	80	70	kJ/m ²	ISO 180/1U
Multi-Axial Instrumented Impact Energy (23°C)	3.60	5.80	J	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force (23°C)	1220	1260	N	ISO 6603-2
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 ⁸	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.	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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