Datasheet

Durethan BKV35H2.0 900116 SR1

PA 6, 35% glass fibers, injection molding, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6,GF35,GHR,S14-110

Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
Rheological properties					
Molding shrinkage, parallel	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 294-4	0.18	
Molding shrinkage, transverse	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 294-4	0.78	
Post- shrinkage, parallel	150x105x3; 120 °C; 4 h	%	acc. ISO 294-4	0.03	
Post- shrinkage, transverse	150x105x3; 120 °C; 4 h	%	acc. ISO 294-4	0.11	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	10700	6800
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	180	110
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.0	5.0
C Tensile creep modulus	1 h	MPa	ISO 899-1		6000
C Tensile creep modulus	1000 h	MPa	ISO 899-1		4900
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	80	90
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	70	70
Flexural modulus	2 mm/min	MPa	ISO 178-A	9400	5900
Flexural strength	2 mm/min	MPa	ISO 178-A	300	180
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	4.0	5.0
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A		160
Ball indentation hardness		N/mm²	ISO 2039-1	230	120
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	222	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	205	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	215	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	>200	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.2	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.8	
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB	
C Oxygen index	Method A	%	ISO 4589-2	23	
Glow wire test (GWFI)		°C	IEC 60695-2-12	650	
Burning behavior US-FMVSS302	>=1.0 mm		ISO 3795	passed	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	6.5	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.9	
C Density		kg/m³	ISO 1183	1410	

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	Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
	Bulk density		kg/m³	ISO 60	700	
	Processing conditions for test specimens					
C	Injection molding-Melt temperature		°C	ISO 294	280	
C	Injection molding-Mold temperature		°C	ISO 294	80	
	Processing recommendations					
	Drying temperature dry air dryer		°C	-	80	
	Drying time dry air dryer		h	-	2-6	
	Residual moisture content		%	Acc. to Karl Fischer	0.03-0.12	
	Melt temperature (Tmin - Tmax)		°C	-	270-290	
	Mold temperature		°C	-	80-120	

Notes

1 Typical properties: these are not to be construed as specifications

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

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Typical Properties

Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

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Type and quantity of pigments or additives used to obtain certain colors and special visual effects can affect mechanical properties.