

Datasheet

Durethan BKV15H2.0 901510 SR1

PA 6-Copolymer, 15% glass fibers, injection molding, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6/66,GF15,GHR,S14-060

Property	Test Condition	Unit	Standard	guide value ¹	
				d.a.m.	cond.
Rheological properties					
Molding shrinkage, parallel	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 294-4	0.29	
Molding shrinkage, transverse	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 294-4	0.88	
Post- shrinkage, parallel	150x105x3; 120 °C; 4 h	%	acc. ISO 294-4	0.08	
Post- shrinkage, transverse	150x105x3; 120 °C; 4 h	%	acc. ISO 294-4	0.21	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	6200	3200
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	125	60
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.5	15
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	50	90
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	40	45
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	< 10	< 10
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	< 10	< 10
Charpy notched impact strength	-40 °C	kJ/m ²	ISO 179-1eA	< 10	< 10
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	30	75
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	30	35
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	< 10	< 10
Izod notched impact strength	-40 °C	kJ/m ²	ISO 180-1A	< 10	< 10
Flexural modulus	2 mm/min	MPa	ISO 178-A	4700	2500
Flexural strength	2 mm/min	MPa	ISO 178-A	180	90
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	4.0	7.0
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	170	70
C Puncture maximum force	23 °C	N	ISO 6603-2	610	
C Puncture maximum force	-30 °C	N	ISO 6603-2	610	
C Puncture energy	23 °C	J	ISO 6603-2	1.8	7.8
C Puncture energy	-30 °C	J	ISO 6603-2	1.8	
Ball indentation hardness		N/mm ²	ISO 2039-1	170	80
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	213	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	190	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	210	
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	60	
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	0.3	

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Property	Test Condition	Unit	Standard	guide value ¹ d.a.m. cond.
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
Glow wire test (GWFI)	2.0 mm	°C	IEC 60695-2-12	650
Burning behavior US-FMVSS302	>=1.0 mm		ISO 3795	passed
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	200
Other properties (23 °C)				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	8.5
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	2.6
C Density		kg/m ³	ISO 1183	1230
Bulk density		kg/m ³	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	-	260-290
Mold temperature		°C	-	80-100

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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