Datasheet
Durethan BKV30PH3.0 901510

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

ISO Shortname: ISO 16396-PA 6,GF30,GHR,S14-100

Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	10000	5800
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	170	100
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.5	9
Tensile modulus	1 mm/min; 120 °C	MPa	ISO 527-1,-2	4000	
Tensile Stress at break	5 mm/min; 120 °C	MPa	ISO 527-1,-2	90	
Tensile Strain at break	5 mm/min; 120 °C	%	ISO 527-1,-2	10.5	
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	80	100
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	65	65
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	10	20
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	<10	<10
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	70	85
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	65	60
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	10	20
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	<10	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	9500	5600
Flexural strength	2 mm/min	MPa	ISO 178-A	270	165
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	4	7
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	260	140
Ball indentation hardness		N/mm²	ISO 2039-1	230	
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	220	
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	220	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	214	
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	1	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	7	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	2.1	
C Density		kg/m³	ISO 1183	1360	
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	

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Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
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.

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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.