

Datasheet

Durethan BKV30GW1 000000 DUS037

PA 6, 30% glass fibers, injection molding, weather stabilized, heat-aging stabilized

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

Property	Test Condition	Unit	Standard	guide value ¹	
				d.a.m.	cond.
Rheological properties					
C Molding shrinkage, parallel	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.2	
C Molding shrinkage, transverse	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.6	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.2	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	9900	6600
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	180	106
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.7	6.1
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	60	65
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	50	40
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	50	60
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	45	40
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	10	10
Flexural modulus	2 mm/min	MPa	ISO 178-A	8700	6300
Flexural strength	2 mm/min	MPa	ISO 178-A	270	177
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.7	5.7
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	260	156
C Puncture maximum force	23 °C	N	ISO 6603-2	840	
C Puncture maximum force	-30 °C	N	ISO 6603-2	740	
C Puncture energy	23 °C	J	ISO 6603-2	3.0	
C Puncture energy	-30 °C	J	ISO 6603-2	2.0	
Ball indentation hardness		N/mm ²	ISO 2039-1	209	
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	219	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	200	
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	211	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.3	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.8	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	6.4	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	2.0	

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C Density		kg/m ³	ISO 1183	1365
Bulk density		kg/m ³	ISO 60	760
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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