

Datasheet

Durethan BKV130GIT 900116 DUS008

PA 6, 30% glass fibers, injection molding, improved impact strength, GIT/WIT

ISO Shortname: ISO 16396-PA 6-I,GF30,GR,S14-090

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	0.5	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.06	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.15	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	9000	5000
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	160	95
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.4	7.5
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	85	85
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	65	60
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	15	20
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	10	10
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	75	60
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	60	55
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	15	15
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	10	10
Flexural modulus	2 mm/min	MPa	ISO 178-A	8500	4900
Flexural strength	2 mm/min	MPa	ISO 178-A	256	145
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	4.1	6.3
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	230	122
C Puncture maximum force	23 °C	N	ISO 6603-2	935	
C Puncture maximum force	-30 °C	N	ISO 6603-2	770	
C Puncture energy	23 °C	J	ISO 6603-2	3.8	
C Puncture energy	-30 °C	J	ISO 6603-2	2.5	
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	195	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	210	
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	0.9	
Other properties (23 °C)					

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Property	Test Condition	Unit	Standard	guide value ¹ d.a.m. cond.
C Density		kg/m ³	ISO 1183	1360
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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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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