

Durethan BKV50HEF 900116 DUS022

PA 6, 50 % glass fibers, injection molding, improved flowability, heat-aging stabilized, weather stabilized

ISO Shortname: ISO 16396-PA 6,GF50,GHR,S10-160

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	0.7	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.02	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.07	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	16200	9500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	205	128
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.3	4.3
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	85	80
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	80	
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	13	
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	10	
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	80	70
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	75	
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	14	20
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	11	
Flexural modulus	2 mm/min	MPa	ISO 178-A	15000	9700
Flexural strength	2 mm/min	MPa	ISO 178-A	320	203
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	2.9	4.0
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A		197
C Puncture maximum force	23 °C	N	ISO 6603-2	1224	1262
C Puncture energy	23 °C	J	ISO 6603-2	3.6	5.8
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	207	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	215	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.1	
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 Density		kg/m ³	ISO 1183	1570	
Bulk density		kg/m ³	ISO 60	650	
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	



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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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Color and Visual Effects

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

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