

Datasheet

Durethan BKV40H3.0EFLT 904040 DUS001

PA 6, 40% glass fibers, injection molding, improved flowability, heat-aging stabilized, NIR-laser transparent coloring (black)

ISO Shortname: ISO 16396-PA 6,GF40,GHR,S12-120

Property	Test Condition	Unit	Standard	guide value ¹ d.a.m. cond.
Rheological properties				
C Molding shrinkage, parallel	60x60x2	%	ISO 294-4	0.2
C Molding shrinkage, transverse	60x60x2	%	ISO 294-4	0.75
Post- shrinkage, parallel	60x60x2	%	ISO 294-4	0.05
Post- shrinkage, transverse	60x60x2	%	ISO 294-4	0.05
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	12500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	195
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.4
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	100
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	90
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	15
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	12
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	90
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	85
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	17
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	12
Flexural modulus	2 mm/min	MPa	ISO 178-A	11500
Flexural strength	2 mm/min	MPa	ISO 178-A	295
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.8
C Puncture maximum force	23 °C	N	ISO 6603-2	1015
C Puncture maximum force	-30 °C	N	ISO 6603-2	870
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	210
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	212
Other properties (23 °C)				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	5.8
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.7
C Density		kg/m ³	ISO 1183	1450
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

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Property	Test Condition	Unit	Standard	guide value ¹ d.a.m. cond.
Processing recommendations				
Drying temperature dry air dryer		°C	-	80
Drying time dry air dryer		h	-	2-6
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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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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