

# Datasheet

## Durethan BKV50GH2.0EF 900051

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

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

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>	
				d.a.m.	cond.
<b>Rheological properties</b>					
C Molding shrinkage, parallel	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.15	
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	0.07	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.13	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	16500	11500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	220	150
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3	4.5
C Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	15	17
C Charpy notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eA	13	12
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	90	85
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	90	
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	15	18
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1A	15	13
Flexural modulus	2 mm/min	MPa	ISO 178-A	15500	11000
Flexural strength	2 mm/min	MPa	ISO 178-A	340	230
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3	4
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	220	
<b>Thermal properties</b>					
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	204	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	219	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.151	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.714	
<b>Other properties (23 °C)</b>					
C Density		kg/m <sup>3</sup>	ISO 1183	1570	
Bulk density		kg/m <sup>3</sup>	ISO 60	770	
<b>Processing conditions for test specimens</b>					
C Injection molding-Melt temperature		°C	ISO 294	280	
C Injection molding-Mold temperature		°C	ISO 294	80	
<b>Processing recommendations</b>					
Drying temperature dry air dryer		°C	-	80	

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup> <small>d.a.m.      cond.</small>
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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Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

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