

# Datasheet

## Durethan BKV30XWPLT 904040

PA 6, 30% glass fibers, injection molding, heat-aging stabilized, improved laser-transparency, NIR-laser transparent coloring (black)

ISO Shortname: ISO 16396-PA 6,GF30,GHR,S14-090

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; 500 bar	%	ISO 294-4	0.19	
C Molding shrinkage, transverse	60x60x2; 280 °C / MT 80 °C; 500 bar	%	ISO 294-4	0.35	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.06	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.23	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	9500	7250
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	175	120
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3,6	5,8
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	65	75
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	55	50
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	11	13
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1A	9	9
Flexural modulus	2 mm/min	MPa	ISO 178-A	8600	6300
Flexural strength	2 mm/min	MPa	ISO 178-A	270	180
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	4,5	5,7
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	245	160
C Puncture energy	23 °C	J	ISO 6603-2	2,9	4,2
C Puncture energy	-30 °C	J	ISO 6603-2	3,1	
<b>Thermal properties</b>					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	222	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	188	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	215	
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	76	
<b>Other properties (23 °C)</b>					
C Density		kg/m <sup>3</sup>	ISO 1183	1360	
Bulk density		kg/m <sup>3</sup>	ISO 60	700	
<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	
Drying time dry air dryer		h	-	2-6	

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup> <small>d.a.m. cond.</small>
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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