

# Datasheet

## Durethan BKV30FN01 000000

PA 6, 30% glass fibers, injection molding, halogen free flame retardant, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6,GF30 FR(30+40),GF2HR,S12-100

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>	
				d.a.m.	cond.
<b>Rheological properties</b>					
C Molding shrinkage, parallel	60x60x2; 600 bar	%	ISO 294-4	0.2	
C Molding shrinkage, transverse	60x60x2; 600 bar	%	ISO 294-4	0.7	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	10300	6700
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	130	90
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3	6
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	60	60
C Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	<10	<10
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	55	60
Flexural modulus	2 mm/min	MPa	ISO 178-A	10400	6500
Flexural strength	2 mm/min	MPa	ISO 178-A	230	140
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3	4.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A		125
<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	205	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	210	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.2	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.8	
C Burning behavior UL 94	1.5 mm	Class	UL 94	V-0	
C Burning behavior UL 94	0.75 mm	Class	UL 94	V-0	
Glow wire test (GWFI)	0.75 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWFI)	1.5 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWFI)	3.0 mm	°C	IEC 60695-2-12	960	
<b>Electrical properties (23 °C/50 % r. h.)</b>					
C Relative permittivity	100 Hz	-	IEC 60250	4.2	8.8
C Relative permittivity	1 MHz	-	IEC 60250	3.7	4.2
C Dissipation factor	100 Hz	10 <sup>-4</sup>	IEC 60250	160	
C Dissipation factor	1 MHz	10 <sup>-4</sup>	IEC 60250	155	
C Volume resistivity		Ohm·m	IEC 62631-3	2.9E+13	7.1E+10
C Electric strength	1 mm	kV/mm	IEC 60243-1	>30	
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600	

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup> d.a.m. cond.
Comparative tracking index CTI	Solution A	PLC	UL 746A	0
<b>Other properties (23 °C)</b>				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	4.8
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.5
C Density		kg/m <sup>3</sup>	ISO 1183	1430
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	260
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
Residual moisture content		%	Acc. to Karl Fischer	0.03-0.07
Melt temperature (Tmin - Tmax)		°C	-	250-270
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.

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