

# Datasheet

## Durethan ECOBKV30H2.0EF 901510

PA 6, 30% glass fibers, injection molding, improved flowability, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6,GF30 (R),GHR,S10-090

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>	
				d.a.m.	cond.
<b>Rheological properties</b>					
C Molding shrinkage, parallel	60x60x2; 270 °C / WZ 120 °C; 600 bar	%	ISO 294-4	0.24	
C Molding shrinkage, transverse	60x60x2; 270 °C / WZ 120 °C; 600 bar	%	ISO 294-4	0.69	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.08	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.19	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	9400	5500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	170	100
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.0	5.8
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	70	80
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	55	55
C Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	11	15
C Charpy notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eA	<10	<10
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	60	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	10	15
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1A	<10	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	8800	5000
Flexural strength	2 mm/min	MPa	ISO 178-A	260	160
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.6	5.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	255	135
C Puncture maximum force	23 °C	N	ISO 6603-2	800	1050
C Puncture maximum force	-30 °C	N	ISO 6603-2	700	750
C Puncture energy	23 °C	J	ISO 6603-2	2	4.6
C Puncture energy	-30 °C	J	ISO 6603-2	2	2
Ball indentation hardness		N/mm <sup>2</sup>	ISO 2039-1	193	
<b>Thermal properties</b>					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	221	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	205	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	219	
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	150	
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	1.0	

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup>	
				d.a.m.	cond.
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	210	
Burning behavior US-FMVSS302	>=1.0 mm		ISO 3795	passed	
<b>Electrical properties (23 °C/50 % r. h.)</b>					
C Electric strength	1 mm	kV/mm	IEC 60243-1	33	25
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	400	
<b>Other properties (23 °C)</b>					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	7.0	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	2.1	
C Density		kg/m <sup>3</sup>	ISO 1183	1350	
Bulk density		kg/m <sup>3</sup>	ISO 60	600	
<b>Processing conditions for test specimens</b>					
C Injection molding-Melt temperature		°C	ISO 294	270	
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	0.03-0.12	
Melt temperature (Tmin - Tmax)		°C	-	250-290	
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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