

# Durethan BKV 60 H2.0 EF DUS060 900116

PA 6, 60 % glass fibers, injection molding, improved flowability, heat-aging stabilized

ISO Shortname: ISO1874-PA 6, GHR, 10-220, GF60

Property	Test Condition	Unit	Standard	guide value	
				d.a.m.	cond.
<b>Rheological properties</b>					
C Molding shrinkage, parallel	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.32	
C Molding shrinkage, transverse	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.40	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.03	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.06	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	20000	12000
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	225	145
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.4	3.5
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	90	90
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	90	90
C Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	16	
C Charpy notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eA	16	
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	80	80
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	80	80
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	16	20
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1A	16	
Flexural modulus	2 mm/min	MPa	ISO 178-A	19300	12800
Flexural strength	2 mm/min	MPa	ISO 178-A	365	235
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	2.8	3.6
Ball indentation hardness		N/mm <sup>2</sup>	ISO 2039-1	255	155
<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	213	
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	210	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.12	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.75	
<b>Electrical properties (23 °C/50 % r. h.)</b>					
C Relative permittivity	100 Hz	-	IEC 60250	5.3	11.2
C Relative permittivity	1 MHz	-	IEC 60250	4.7	5.1
C Dissipation factor	100 Hz	10 <sup>-4</sup>	IEC 60250	164	2149
C Dissipation factor	1 MHz	10 <sup>-4</sup>	IEC 60250	177	651
C Volume resistivity		Ohm-m	IEC 60093	5.8E12	8E9
C Electric strength	1 mm	kV/mm	IEC 60243-1	33	33



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Property	Test Condition	Unit	Standard	guide value d.a.m. cond.
C Comparative tracking index CTI	Solution A	V	IEC 60112	600
<b>Other properties (23 °C)</b>				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	3.6
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.3
C Density		kg/m <sup>3</sup>	ISO 1183	1700
Bulk density		kg/m <sup>3</sup>	ISO 60	750
<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
Residual moisture content		%	Acc. to Karl Fischer	0.05-0.15
Melt temperature (Tmin - Tmax)		°C	-	270-290
Mold temperature		°C	-	80-120

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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