

Durethan[®] BKV20GW1

PA6–GF20

20% Glass Reinforced, Injection Molding, Excellent Surface Properties

Print Date: 2024–08–24

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	7600 / 4700	MPa	ISO 527–1/–2
Stress at break	150 / 100	MPa	ISO 527–1/–2
Strain at break	3 / 7	%	ISO 527–1/–2
Flexural modulus	6400 / 4100	MPa	ISO 178
Flexural strength	212 / 130	MPa	ISO 178
Charpy impact strength (+23°C)	45 / 60	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	40 / 40	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / –	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (–30°C)	<10 / –	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / <10	kJ/m ²	ISO 180/1A
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	222 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	193 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	213 / *	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.23 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.89 / *	E–4/°C	ISO 11359–1/–2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695–11–10
Thickness tested	1.5 / *	mm	IEC 60695–11–10
Burning Behav. at 0.75 mm nom. thickn.	HB / *	class	IEC 60695–11–10
Thickness tested	0.75 / *	mm	IEC 60695–11–10

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Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<i>ELECTRICAL PROPERTIES</i>			
<i>DRY / COND</i>			
Relative permittivity (100Hz)	4.1 / 9.34	–	IEC 62631-2-1
Relative permittivity (1 MHz)	3.74 / 4.27	–	IEC 62631-2-1
Dissipation factor (100 Hz)	80 / 2200	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	180 / 650	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 2E13	Ohm	IEC 62631-3-2
<i>OTHER PROPERTIES</i>			
<i>DRY / COND</i>			
Density	1280 / –	kg/m ³	ISO 1183
<i>MATERIAL SPECIFIC PROPERTIES</i>			
<i>DRY / COND</i>			
Viscosity number	140 / *	cm ³ /g	ISO 307, 1157, 1628
<i>PROCESSING RECOMMENDATIONS</i>			
<i>VALUE</i>			
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2-6	h	
Residual moisture content	0.03-0.12	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	270-290	°C	
Mold temperature	80-120	°C	

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