

Durethan® BKV20GW1

PA6–GF20

20% Glass Reinforced, Injection Molding, Excellent Surface Properties

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/m²	ISO 179/1eU
Charpy impact strength (-30°C)	40 / 40	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / –	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	<10 / –	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / <10	kJ/m²	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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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
ELECTRICAL PROPERTIES	DRY / COND		
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
OTHER PROPERTIES	DRY / COND		
Density	1280 / –	kg/m³	ISO 1183
MATERIAL SPECIFIC PROPERTIES	DRY / COND		
Viscosity number	140 / *	cm³/g	ISO 307, 1157, 1628
PROCESSING RECOMMENDATIONS	VALUE		
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	