

Durethan[®] BKV50H2.0

PA6–GF50

50% Glass Reinforced, Injection Molding, Heat Stabilized

Print Date: 2024–12–10

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	16300 / 9800	MPa	ISO 527–1/–2
Stress at break	220 / 140	MPa	ISO 527–1/–2
Strain at break	3 / 5	%	ISO 527–1/–2
Flexural modulus	15100 / 9700	MPa	ISO 178
Flexural strength	360 / 230	MPa	ISO 178
Tensile modulus (200°C)	4780	MPa	ISO 527–1/–2
Charpy impact strength (+23°C)	100 / 100	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	85 / 80	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	20 / 25	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (–30°C)	15 / 13	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	20 / 25	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)	205 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	215 / *	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.2 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.7 / *	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 3.0 mm nom. thickn.	HB / *	class	IEC 60695–11–10
Thickness tested	3 / *	mm	IEC 60695–11–10
Burning Behav. at 0.75 mm nom. thickn.	HB / *	class	IEC 60695–11–10

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Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	24 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	650 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	2 / -	mm	IEC 60695-2-12
<i>ELECTRICAL PROPERTIES</i>	<i>DRY / COND</i>		
Relative permittivity (100Hz)	5.3 / 14.2	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4.3 / 5	-	IEC 62631-2-1
Dissipation factor (100 Hz)	360 / 3190	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	240 / 890	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric strength	35 / 26	kV/mm	IEC 60243-1
Comparative tracking index	550 / -	V	IEC 60112
<i>OTHER PROPERTIES</i>	<i>DRY / COND</i>		
Water absorption	5 / *	%	Sim. to ISO 62
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1570 / -	kg/m³	ISO 1183
<i>MATERIAL SPECIFIC PROPERTIES</i>	<i>DRY / COND</i>		
Viscosity number	140 / *	cm³/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	

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Mold temperature	80-120	°C	

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