Property Data

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Durethan® BKV50H2.0

PA6–GF50

Injection Molding, 50% Glass Fiber Reinforced, Heat Stabilized

Print Date: 2025–11–26

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	16300 / 9800	MPa	ISO 527–1/–2
Stress at break	230 / 150	MPa	ISO 527–1/–2
Strain at break	3.2 / 5	%	ISO 527–1/–2
Flexural modulus	15500 / 9700	MPa	ISO 178
Flexural strength	360 / 230	MPa	ISO 178
Tensile modulus (200°C)	4750	MPa	ISO 527–1/–2
Charpy impact strength (+23°C)	100 / 105	kJ/m²	ISO 179/1eU
Charpy impact strength (–30°C)	90 / 85	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	20 / 25	kJ/m²	ISO 179/1eA
Charpy notched impact strength (–30°C)	15 / 13	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	20 / 25	kJ/m²	ISO 180/1A
THERMAL PROPERTIES	DRY / COND		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	210 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	220 / *	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.1 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.5 / *	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
ELECTRICAL PROPERTIES	**DRY / COND**		
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
OTHER PROPERTIES	**DRY / COND**		
Water absorption	4.7 / *	%	Sim. to ISO 62
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1560 / –	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	

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PROPERTIES	*TYPICAL DATA*	*UNIT*	*TEST METHOD*
Mold temperature	80–120	°C	