Property Data

Envalior
Imagine the Future

Durethan® BKV50H2.0EF

PA6–GF50

50% Glass Reinforced, Injection Molding, Heat Stabilized, Improved flow

Print Date: 2024–08–24

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage (parallel)	0.19 / *	%	ISO 294–4
Molding shrinkage (normal)	0.6 / *	%	ISO 294–4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	16200 / 10000	MPa	ISO 527–1/–2
Stress at break	215 / 140	MPa	ISO 527–1/–2
Strain at break	2.7 / 3.5	%	ISO 527–1/–2
Flexural modulus	15000 / 9900	MPa	ISO 178
Flexural strength	340 / 230	MPa	ISO 178
Tensile modulus (200°C)	5270	MPa	ISO 527–1/–2
Charpy impact strength (+23°C)	100 / 85	kJ/m²	ISO 179/1eU
Charpy impact strength (–30°C)	95 / 85	kJ/m²	ISO 179/1eU
Izod notched impact strength (+23°C)	17 / 20	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)	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)	0.12 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.9 / *	E–4/°C	ISO 11359–1/–2
ELECTRICAL PROPERTIES	DRY / COND		
Relative permittivity (100Hz)	4.7 / 12.9	–	IEC 62631–2–1

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PROPERTIES	*TYPICAL DATA*	*UNIT*	*TEST METHOD*
Relative permittivity (1 MHz)	4.2 / 4.8	–	IEC 62631–2–1
Dissipation factor (100 Hz)	135 / 2620	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	170 / 774	E–4	IEC 62631–2–1
Volume resistivity	7E12 / 4E9	Ohm*m	IEC 62631–3–1
Electric strength	35 / 34	kV/mm	IEC 60243–1
Comparative tracking index	400 / –	V	IEC 60112

OTHER PROPERTIES	*DRY / COND*		
Water absorption	5 / *	%	Sim. to ISO 62
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1570 / –	kg/m³	ISO 1183

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	