

Durethan® BKV40H3.0

PA6–GF40

40% Glass Reinforced, Injection Molding, Heat Stabilized

Print Date: 2024–08–24

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	12300 / 7800	MPa	ISO 527–1/–2
Stress at break	205 / 130	MPa	ISO 527–1/–2
Strain at break	3 / 5	%	ISO 527–1/–2
Flexural modulus	11000 / 7300	MPa	ISO 178
Flexural strength	325 / 205	MPa	ISO 178
Charpy impact strength (+23°C)	90 / 95	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	75 / 75	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	18 / 24	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (–30°C)	13 / 11	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	18 / 24	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)	200 / *	°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)	0.8 / *	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
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

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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 / 15	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 5	–	IEC 62631-2-1
Dissipation factor (100 Hz)	70 / 2000	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	150 / 1200	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E12	Ohm	IEC 62631-3-2
Electric strength	40 / 35	kV/mm	IEC 60243-1
Comparative tracking index	525 / –	V	IEC 60112
<i>OTHER PROPERTIES</i>			
<i>DRY / COND</i>			
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	1.8 / *	%	Sim. to ISO 62
Density	1460 / –	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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