

# Durethan® BKV30H3.0EF

## PA6–GF30

30% Glass Reinforced, Injection Molding, Heat Stabilized, Improved flow

Print Date: 2024–08–24

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage (parallel)	0.25 / *	%	ISO 294–4
Molding shrinkage (normal)	0.7 / *	%	ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	9400 / 5500	MPa	ISO 527–1/–2
Stress at break	170 / 100	MPa	ISO 527–1/–2
Strain at break	3 / 5.8	%	ISO 527–1/–2
Flexural modulus	8400 / 5000	MPa	ISO 178
Flexural strength	260 / 170	MPa	ISO 178
Charpy impact strength (+23°C)	65 / 80	kJ/m²	ISO 179/1eU
Charpy impact strength (–30°C)	55 / 55	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	11 / 15	kJ/m²	ISO 179/1eA
Charpy notched impact strength (–30°C)	<10 / <10	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	10 / 20	kJ/m²	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Melting temperature (10°C/min)	221 / *	°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)	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)	1 / *	E–4/°C	ISO 11359–1/–2
Glow Wire Flammability Index GWFI	675 / –	°C	IEC 60695–2–12
GWFI (Thickness (1) tested)	0.75 / –	mm	IEC 60695–2–12

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## Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Glow Wire Flammability Index GWFI	700 / –	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	1.5 / –	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	700 / –	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.75 / –	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	675 / –	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5 / –	mm	IEC 60695-2-13

## ELECTRICAL PROPERTIES

### DRY / COND

Relative permittivity (100Hz)	3.63 / 4.04	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4.43 / 9.23	–	IEC 62631-2-1
Dissipation factor (100 Hz)	0.02 / 0.08	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	0.03 / 0.13	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / 7.7E10	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 4.1E14	Ohm	IEC 62631-3-2
Electric strength	31.6 / 29.1	kV/mm	IEC 60243-1
Comparative tracking index	600 / –	V	IEC 60112

## OTHER PROPERTIES

### DRY / COND

Water absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.1 / *	%	Sim. to ISO 62
Density	1360 / –	kg/m <sup>3</sup>	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)	260-280	°C	
Mold temperature	80-120	°C	

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