

Durethan® BKV30FN04

PA6—GF30 FR(40)

Injection Molding, 30% Glass Reinforced, Flame Retardant (halogen free), Heat Stabilized

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.2 / *	%	ISO 294-4
Molding shrinkage (normal)	0.7 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	10300 / 6700	MPa	ISO 527-1/-2
Stress at break	130 / 90	MPa	ISO 527-1/-2
Strain at break	3 / 6	%	ISO 527-1/-2
Flexural modulus	10200 / 6600	MPa	ISO 178
Flexural strength	230 / 158	MPa	ISO 178
Tensile modulus (200°C)	2730	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	60 / 68	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	55 / 50	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 13	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	<10 / -	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / 13	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)	205 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	219 / *	°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.	V-0 / *	class	IEC 60695-11-10

Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
Burning Behav. at 0.4 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	32 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-13

ELECTRICAL PROPERTIES	DRY / COND		
Relative permittivity (100Hz)	4 / 8	-	IEC 62631-2-1
Relative permittivity (1 MHz)	3.6 / 3.9	-	IEC 62631-2-1
Dissipation factor (100 Hz)	145 / 1130	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	155 / 655	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / 2.1E11	Ohm*m	IEC 62631-3-1
Electric strength	40 / 37	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112

OTHER PROPERTIES	DRY / COND		
Water absorption	4.6 / *	%	Sim. to ISO 62
Humidity absorption	1.5 / *	%	Sim. to ISO 62

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Density	1420 / –	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	0.03–0.07	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	250–280	°C	
Mold temperature	70–90	°C	