

Durethan® BKV30XWPHV

PA6—GF30

30% Glass Reinforced, Injection Molding, Heat Stabilized, Improved Impact, Laser Weldable

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.35 / *	%	ISO 294-4
Molding shrinkage (normal)	0.7 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	9800 / 5600	MPa	ISO 527-1/-2
Stress at break	170 / 100	MPa	ISO 527-1/-2
Strain at break	3 / 8	%	ISO 527-1/-2
Flexural modulus	8300 / 4900	MPa	ISO 178
Flexural strength	260 / 150	MPa	ISO 178
Charpy impact strength (+23°C)	80 / 95	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	65 / 65	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 20	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	<10 / <10	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	12 / <10	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)	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)	1 / *	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

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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
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	23 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	700 / –	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	2 / –	mm	IEC 60695-2-12

ELECTRICAL PROPERTIES	DRY / COND		
Relative permittivity (100Hz)	4.5 / 17	–	IEC 62631-2-1
Relative permittivity (1 MHz)	3.9 / 4.8	–	IEC 62631-2-1
Dissipation factor (100 Hz)	190 / 3900	E-4	IEC 62631-2-1
Volume resistivity	1E13 / >1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 3.6E13	Ohm	IEC 62631-3-2
Electric strength	32 / –	kV/mm	IEC 60243-1
Comparative tracking index	450 / –	V	IEC 60112

OTHER PROPERTIES	DRY / COND		
Water absorption	6.5 / *	%	Sim. to ISO 62
Humidity absorption	2.3 / *	%	Sim. to ISO 62
Density	1360 / –	kg/m³	ISO 1183

MATERIAL SPECIFIC PROPERTIES	DRY / COND		
Viscosity number	195 / *	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

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Melt temperature (Tmin – Tmax)	270–290	°C	
Mold temperature	80–120	°C	