

Durethan® BKV140

PA*—I—GF40

40% Glass Reinforced, Injection Molding, Improved Impact

Print Date: 2024-12-10

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.1 / *	%	ISO 294-4
Molding shrinkage (normal)	0.6 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	11500 / 6700	MPa	ISO 527-1/-2
Stress at break	180 / 120	MPa	ISO 527-1/-2
Strain at break	3 / 6	%	ISO 527-1/-2
Flexural modulus	10400 / 6200	MPa	ISO 178
Flexural strength	295 / 175	MPa	ISO 178
Charpy impact strength (+23°C)	100 / 110	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	95 / 95	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	25 / 30	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	10 / 10	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	20 / 30	kJ/m ²	ISO 180/1A
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	213 / *	°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)	210 / *	°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)	0.9 / *	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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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
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	22 / *	%	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
<i>ELECTRICAL PROPERTIES</i>	<i>DRY / COND</i>		
Relative permittivity (100Hz)	4 / 10	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 5	-	IEC 62631-2-1
Dissipation factor (100 Hz)	70 / -	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	200 / -	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E9	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E10	Ohm	IEC 62631-3-2
Electric strength	40 / 35	kV/mm	IEC 60243-1
Comparative tracking index	575 / -	V	IEC 60112
<i>OTHER PROPERTIES</i>	<i>DRY / COND</i>		
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1460 / -	kg/m ³	ISO 1183
<i>MATERIAL SPECIFIC PROPERTIES</i>	<i>DRY / COND</i>		
Viscosity number	134 / *	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	

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Residual moisture content	0.03–0.12	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	260–290	°C	
Mold temperature	80–100	°C	

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