

Durethan[®] BKV35

PA6–GF35

35% Glass Reinforced, Injection Molding

Print Date: 2024–08–24

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.23 / *	%	ISO 294–4
Molding shrinkage (normal)	0.7 / *	%	ISO 294–4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	10700 / 6800	MPa	ISO 527–1/–2
Stress at break	180 / 110	MPa	ISO 527–1/–2
Strain at break	3 / 5	%	ISO 527–1/–2
Flexural modulus	10700 / 5900	MPa	ISO 178
Flexural strength	290 / 180	MPa	ISO 178
Charpy impact strength (+23°C)	80 / 90	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	70 / 70	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 20	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)	15 / 20	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)	205 / *	°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

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
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	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 / 1.5	–	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	6.5 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1410 / –	kg/m³	ISO 1183
<i>MATERIAL SPECIFIC PROPERTIES</i>	<i>DRY / COND</i>		
Viscosity number	140 / *	cm³/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

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Melt temperature (Tmin – Tmax)	270–290	°C	
Mold temperature	80–120	°C	

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