

# Durethan® BKV25FN04

## PA6–GF25 FR(40)

25% Glass Reinforced, Injection Molding, Flame Retardant (halogen free), Heat Stabilized

Print Date: 2024–12–10

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage (parallel)	0.3 / *	%	ISO 294–4
Molding shrinkage (normal)	0.8 / *	%	ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	9800 / 6100	MPa	ISO 527–1/–2
Stress at break	125 / 80	MPa	ISO 527–1/–2
Strain at break	3.4 / 6.7	%	ISO 527–1/–2
Flexural modulus	9400 / 6000	MPa	ISO 178
Flexural strength	200 / 140	MPa	ISO 178
Charpy impact strength (+23°C)	65 / 65	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	60 / 55	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 13	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	<10 / <10	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / 14	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Melting temperature (10°C/min)	220 / *	°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)	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
Thickness tested	1.5 / *	mm	IEC 60695–11–10

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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 0.75 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)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.75 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-13

## ELECTRICAL PROPERTIES

### DRY / COND

Relative permittivity (100Hz)	3.9 / 8.3	-	IEC 62631-2-1
Relative permittivity (1 MHz)	3.5 / 3.9	-	IEC 62631-2-1
Dissipation factor (100 Hz)	150 / 1210	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	160 / 710	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / 1.4E11	Ohm*m	IEC 62631-3-1
Electric strength	40 / 38	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112

## OTHER PROPERTIES

### DRY / COND

Water absorption	4.9 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1380 / -	kg/m³	ISO 1183

## PROCESSING RECOMMENDATIONS

### VALUE

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2-6	h	
Melt temperature (Tmin – Tmax)	250-280	°C	
Mold temperature	70-90	°C	

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