Property Data

Envalior
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Durethan® BKV30FN04

PA6–GF30 FR(40)

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

Print Date: 2026–05–29

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)	9 / –	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

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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	