Property Data

Envalior
Imagine the Future

Durethan® AKV30GH2.0 SR1

PA66-GF30

30% Glass Reinforced, Injection Molding, Heat Stabilized, Excellent Surface Properties

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	9600 / 6500	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	8400 / 5600	MPa	ISO 178
Flexural strength	270 / 170	MPa	ISO 178
Charpy impact strength (+23°C)	70 / 75	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	60 / 60	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 15	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	<10 / <10	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / <10	kJ/m²	ISO 180/1A
THERMAL PROPERTIES	DRY / COND		
Melting temperature (10°C/min)	260 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	220 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	250 / *	°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
Oxygen index	26 / *	%	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

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ELECTRICAL PROPERTIES	**DRY / COND**		
Relative permittivity (100Hz)	4 / 8	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 4	–	IEC 62631-2-1
Dissipation factor (100 Hz)	90 / 1800	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	170 / 600	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric strength	31 / 28	kV/mm	IEC 60243-1
Comparative tracking index	375 / –	V	IEC 60112
OTHER PROPERTIES	**DRY / COND**		
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1360 / –	kg/m³	ISO 1183
MATERIAL SPECIFIC PROPERTIES	**DRY / COND**		
Viscosity number	138 / *	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
Melt temperature (Tmin – Tmax)	280-300	°C	
Mold temperature	80-120	°C	