

Durethan® AKV35H3.0

PA66–GF35

35% Glass Reinforced, Injection Molding, Heat Stabilized

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.37 / *	%	ISO 294–4
Molding shrinkage (normal)	1.06 / *	%	ISO 294–4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	11200 / 7500	MPa	ISO 527–1/–2
Stress at break	200 / 135	MPa	ISO 527–1/–2
Strain at break	3 / 5	%	ISO 527–1/–2
Flexural modulus	10500 / 7000	MPa	ISO 178
Flexural strength	300 / 220	MPa	ISO 178
Tensile modulus (200°C)	3980	MPa	ISO 527–1/–2
Charpy impact strength (+23°C)	85 / 90	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	70 / 75	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)	12 / 15	kJ/m ²	ISO 180/1A
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	263 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	250 / *	°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)	1 / *	E–4/°C	ISO 11359–1/–2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695–11–10

Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Thickness tested	1.5 / *	mm	IEC 60695-11-10
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	23 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	600 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	2 / -	mm	IEC 60695-2-12

ELECTRICAL PROPERTIES

DRY / COND

Relative permittivity (100Hz)	5 / -	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / -	-	IEC 62631-2-1
Dissipation factor (100 Hz)	300 / -	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	270 / -	E-4	IEC 62631-2-1
Volume resistivity	1E13 / -	Ohm*m	IEC 62631-3-1
Electric strength	39 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112

OTHER PROPERTIES

DRY / COND

Water absorption	5 / *	%	Sim. to ISO 62
Humidity absorption	1.8 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m ³	ISO 1183

PROCESSING RECOMMENDATIONS

VALUE

Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2-6	h	
Residual moisture content	0.03-0.12	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	280-300	°C	

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Mold temperature	80–120	°C	