

Durethan® AKV35

PA66–GF35

35% Glass Reinforced, Injection Molding

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
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	10000 / 7000	MPa	ISO 178
Flexural strength	300 / 220	MPa	ISO 178
Charpy impact strength (+23°C)	90 / 95	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	75 / 75	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	15 / 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 (-40°C)	<10 / <10	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
Thickness tested	1.5 / *	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

Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<i>ELECTRICAL PROPERTIES</i>			
<i>DRY / COND</i>			
Relative permittivity (100Hz)	4 / 10	–	IEC 62631–2–1
Relative permittivity (1 MHz)	4 / 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	600 / –	V	IEC 60112
<i>OTHER PROPERTIES</i>			
<i>DRY / COND</i>			
Water absorption	5 / *	%	Sim. to ISO 62
Humidity absorption	1.8 / *	%	Sim. to ISO 62
Density	1410 / –	kg/m ³	ISO 1183
<i>MATERIAL SPECIFIC PROPERTIES</i>			
<i>DRY / COND</i>			
Viscosity number	146 / *	cm ³ /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
Melt temperature (Tmin – Tmax)	280–300	°C	
Mold temperature	80–120	°C	