

Durethan® AKV15

PA66–GF15

15% Glass Reinforced, Injection Molding

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<i>RHEOLOGICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Molding shrinkage (parallel)	0.6 / *	%	ISO 294–4
Molding shrinkage (normal)	1 / *	%	ISO 294–4
<i>MECHANICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Tensile modulus	6200 / 4100	MPa	ISO 527–1/–2
Stress at break	125 / 90	MPa	ISO 527–1/–2
Strain at break	3 / 18	%	ISO 527–1/–2
Flexural modulus	5200 / 3200	MPa	ISO 178
Flexural strength	200 / 135	MPa	ISO 178
Charpy impact strength (+23°C)	40 / 50	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	40 / 40	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / <10	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
<i>THERMAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Melting temperature (10°C/min)	263 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	230 / *	°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)	0.4 / *	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

Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Oxygen index	22 / *	%	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

ELECTRICAL PROPERTIES

DRY / COND

Relative permittivity (100Hz)	4 / 9	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 4	–	IEC 62631-2-1
Dissipation factor (100 Hz)	80 / 1300	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	150 / 700	E-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	35 / 30	kV/mm	IEC 60243-1
Comparative tracking index	600 / –	V	IEC 60112

OTHER PROPERTIES

DRY / COND

Water absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.4 / *	%	Sim. to ISO 62
Density	1240 / –	kg/m ³	ISO 1183

MATERIAL SPECIFIC PROPERTIES

DRY / COND

Viscosity number	146 / *	cm ³ /g	ISO 307, 1157, 1628
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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	