

Akulon[®] AKV50H2.0

Durethan[®] AKV50H2.0

PA66—GF50

50% Glass Fiber Reinforced, Injection Molding, Heat Stabilized

Print Date: 2026-04-09

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.35 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	16000 / 11500	MPa	ISO 527-1/-2
Stress at break	235 / 165	MPa	ISO 527-1/-2
Strain at break	2.7 / 3.9	%	ISO 527-1/-2
Flexural modulus	15500 / 11500	MPa	ISO 178
Flexural strength	355 / 275	MPa	ISO 178
Tensile modulus (200°C)	5200	MPa	ISO 527-1/-2
Stress at break (200°C)	75	MPa	ISO 527-1/-2
Strain at break (200°C)	5.9	%	ISO 527-1/-2
Charpy impact strength (+23°C)	95 / 95	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	100 / 100	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	16 / 21	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	14 / 14	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	15 / 20	kJ/m ²	ISO 180/1A
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	261 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	247 / *	°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

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Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Coeff. of linear therm. expansion (normal)	0.8 / *	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
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	27 / *	%	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)	4.5 / 14	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 5	-	IEC 62631-2-1
Dissipation factor (100 Hz)	90 / 3200	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	150 / 850	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E12	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	550 / -	V	IEC 60112
OTHER PROPERTIES		DRY / COND	
Water absorption	4 / *	%	Sim. to ISO 62
Humidity absorption	1.2 / *	%	Sim. to ISO 62
Density	1570 / -	kg/m³	ISO 1183
MATERIAL SPECIFIC PROPERTIES		DRY / COND	
Viscosity number	146 / *	cm³/g	ISO 307, 1157, 1628

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