

Akulon® SG-KGS6/HV

PA66-GF30 FR(40)

30% Glass Reinforced, High Flow, Halogen free and free of red phosphorous

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage (parallel)	0.28 / *	%	ISO 294-4
Molding shrinkage (normal)	1.31 / *	%	ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	11000 / 8600	MPa	ISO 527-1/-2
Stress at break	155 / 120	MPa	ISO 527-1/-2
Strain at break	3 / 3.4	%	ISO 527-1/-2
Flexural modulus	11500 / 7450	MPa	ISO 178
Flexural strength	240 / 180	MPa	ISO 178
Charpy impact strength (+23°C)	68 / 62	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	50 / 48	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
Thermal properties			
	dry / cond		
Melting temperature (10°C/min)	260 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	247 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.21 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.67 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10



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Properties	Typical Data	Unit	Test Method
Burning Behav. at 0.75 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	3 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	800 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	825 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	3 / -	mm	IEC 60695-2-13

Electrical properties

dry / cond

Relative permittivity (100Hz)	4.2 / 7.3	-	IEC 62631-2-1
Relative permittivity (1 MHz)	3.9 / 4.3	-	IEC 62631-2-1
Dissipation factor (100 Hz)	110 / 110	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	150 / 490	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / 5E12	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15 / 3E13	Ohm	IEC 62631-3-2
Electric strength	41 / 38	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112

Other properties

dry / cond

Water absorption	4.9 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1430 / -	kg/m ³	ISO 1183

