

Akulon® Ultraflow K-FKGS6 /B

PA6-GF30 FR(17)

30% Glass Reinforced, Heat Stabilized, Flame Retardant, High Flow

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage [parallel]	0.21 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	0.77 / *	%	Sim. to ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	12000 / 8300	MPa	ISO 527-1/-2
Stress at break	155 / 105	MPa	ISO 527-1/-2
Strain at break	2.3 / 3.6	%	ISO 527-1/-2
Flexural modulus	11500 / 8000	MPa	ISO 178
Flexural strength	240 / 165	MPa	ISO 178
Charpy impact strength (+23°C)	55 / 55	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	60 / 60	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 14	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	12 / 12	kJ/m ²	ISO 179/1eA
Thermal properties			
	dry / cond		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	205 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°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)	1.1 / *	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



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Properties	Typical Data	Unit	Test Method
Thickness tested	3 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	30 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.75 / -	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)	0.75 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	800 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-13

Electrical properties

dry / cond

Relative permittivity (100Hz)	3.5 / 10	-	IEC 62631-2-1
Relative permittivity (1 MHz)	3.4 / 4	-	IEC 62631-2-1
Dissipation factor (100 Hz)	60 / 3000	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	120 / 700	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	- / 1E14	Ohm	IEC 62631-3-2
Comparative tracking index	325 / -	V	IEC 60112

Other properties

dry / cond

Water absorption	4.5 / *	%	Sim. to ISO 62
Humidity absorption	1.3 / *	%	Sim. to ISO 62
Density	1550 / -	kg/m ³	ISO 1183

