

Akulon[®] Care K1G6

PA6—GF30

30% Glass Reinforced, Medical grade, Food Contact Quality

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.3 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	9500 / 6000	MPa	ISO 527-1/-2
Stress at break	180 / 110	MPa	ISO 527-1/-2
Strain at break	3.5 / 7	%	ISO 527-1/-2
Flexural modulus	8600 / –	MPa	ISO 178
Flexural strength	235 / –	MPa	ISO 178
Charpy impact strength (+23°C)	90 / 110	kJ/m²	ISO 179/1eU
Charpy impact strength (–30°C)	75 / 75	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 25	kJ/m²	ISO 179/1eA
Charpy notched impact strength (–30°C)	11 / 11	kJ/m²	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)	200 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220 / *	°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)	0.7 / *	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

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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

ELECTRICAL PROPERTIES	DRY / COND		
Relative permittivity (100Hz)	3.5 / 20	—	IEC 62631-2-1
Relative permittivity (1 MHz)	3.3 / 5	—	IEC 62631-2-1
Dissipation factor (100 Hz)	50 / 3000	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	150 / 1200	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	— / 1E14	Ohm	IEC 62631-3-2
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	* / 600	V	IEC 60112

OTHER PROPERTIES	DRY / COND		
Water absorption	6.3 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1350 / —	kg/m³	ISO 1183