

Akulon® S223-HPG5

PA66-I-GF25

25% Glass Reinforced, Impact Modified, Heat Stabilized, Resistant to Oil and Grease

Print Date: 2019-03-13

Properties	Typical Data	Unit	Test Method
Mechanical properties			
	dry / cond		
Tensile modulus	7500 / 6000	MPa	ISO 527-1/-2
Stress at break	150 / 110	MPa	ISO 527-1/-2
Strain at break	4 / 5.5	%	ISO 527-1/-2
Flexural modulus	7000 / -	MPa	ISO 178
Flexural strength	225 / -	MPa	ISO 178
Charpy impact strength (+23°C)	85 / 100	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	50 / 50	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	11 / 17	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	9 / 9	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)	245 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	260 / *	°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)	0.8 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
Electrical properties			
	dry / cond		
Relative permittivity (100Hz)	3.7 / 11	-	IEC 60250

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Relative permittivity (1 MHz)	3.3 / 4.6	-	IEC 60250
Dissipation factor (100 Hz)	110 / 1400	E-4	IEC 60250
Dissipation factor (1 MHz)	180 / 1000	E-4	IEC 60250
Volume resistivity	1E12 / 1E10	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	35 / 30	kV/mm	IEC 60243-1
Comparative tracking index	500 / 500	V	IEC 60112

Other properties

dry / cond

Water absorption	5.5 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1290 / -	kg/m ³	ISO 1183

Material specific properties

dry / cond

Viscosity number	140 / *	cm ³ /g	ISO 307, 1157, 1628
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