

Akulon® S223-E

PA66

Low/Medium Viscosity

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Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage [parallel]	1.6 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1.6 / *	%	Sim. to ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	3500 / 1500	MPa	ISO 527-1/-2
Nominal strain at break	25 / >50	%	ISO 527-1/-2
Yield stress	95 / 60	MPa	ISO 527-1/-2
Yield strain	3.5 / 20	%	ISO 527-1/-2
Flexural modulus	2800 / -	MPa	ISO 178
Flexural strength	125 / -	MPa	ISO 178
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6 / 12	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6 / 6	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)	80 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	225 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	1 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10

Properties	Typical Data	Unit	Test Method
Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10

Electrical properties

dry / cond

Relative permittivity (100Hz)	3.2 / 10	-	IEC 60250
Relative permittivity (1 MHz)	3 / 4	-	IEC 60250
Dissipation factor (100 Hz)	60 / 1400	E-4	IEC 60250
Dissipation factor (1 MHz)	170 / 1000	E-4	IEC 60250
Volume resistivity	1E13 / 1E10	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	25 / 20	kV/mm	IEC 60243-1
Comparative tracking index	600 / 600	V	IEC 60112

Other properties

dry / cond

Water absorption	8.5 / *	%	Sim. to ISO 62
Humidity absorption	2.3 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m ³	ISO 1183