

Akulon® S223-HG7

PA66-GF35

35% Glass Reinforced, Heat Stabilized

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage [parallel]	0.2 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1 / *	%	Sim. to ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	11500 / 7550	MPa	ISO 527-1/-2
Stress at break	210 / 140	MPa	ISO 527-1/-2
Strain at break	3.5 / 5.8	%	ISO 527-1/-2
Flexural modulus	11000 / 7500	MPa	ISO 178
Flexural strength	310 / 210	MPa	ISO 178
Tensile modulus (200°C)	3850	MPa	ISO 527-1/-2
Stress at break (200°C)	76	MPa	ISO 527-1/-2
Strain at break (200°C)	9.2	%	ISO 527-1/-2
Charpy impact strength (+23°C)	90 / 95	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	74 / 74	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12.8 / 18	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	11 / 11	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
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)	0.6 / *	E-4/°C	ISO 11359-1/-2



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Properties	Typical Data	Unit	Test Method
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
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)	4 / 10	-	IEC 62631-2-1
Relative permittivity (1 MHz)	3.6 / 4	-	IEC 62631-2-1
Dissipation factor (100 Hz)	50 / 3000	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	140 / 1000	E-4	IEC 62631-2-1
Volume resistivity	1E12 / 1E10	Ohm*m	IEC 62631-3-1
Surface resistivity	- / 1E13	Ohm	IEC 62631-3-2
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	1.5 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m ³	ISO 1183

