

# Akulon<sup>®</sup> S223–HG7

## PA66–GF35

35% Glass Reinforced, Heat Stabilized

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b><i>RHEOLOGICAL PROPERTIES</i></b>			
	<i>DRY / COND</i>		
Molding shrinkage [parallel]	0.2 / *	%	Sim. to ISO 294–4
Molding shrinkage [normal]	1 / *	%	Sim. to ISO 294–4
<b><i>MECHANICAL PROPERTIES</i></b>			
	<i>DRY / COND</i>		
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 <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	74 / 74	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	12.8 / 18	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	11 / 11	kJ/m <sup>2</sup>	ISO 179/1eA
<b><i>THERMAL PROPERTIES</i></b>			
	<i>DRY / COND</i>		
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

## Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
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 <sup>3</sup>	ISO 1183