

# Akulon<sup>®</sup> S223–HPG5

## PA66–I–GF25

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

Print Date: 2025–10–04

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>MECHANICAL PROPERTIES</b>		<b>DRY / COND</b>	
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 <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	50 / 50	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	11 / 17	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	9 / 9	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL PROPERTIES</b>		<b>DRY / COND</b>	
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
<b>ELECTRICAL PROPERTIES</b>		<b>DRY / COND</b>	
Relative permittivity (100Hz)	3.7 / 11	–	IEC 62631–2–1
Relative permittivity (1 MHz)	3.3 / 4.6	–	IEC 62631–2–1
Dissipation factor (100 Hz)	110 / 1400	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	180 / 1000	E–4	IEC 62631–2–1
Volume resistivity	1E12 / 1E10	Ohm*m	IEC 62631–3–1

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
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	1.6 / *	%	Sim. to ISO 62
Density	1290 / –	kg/m³	ISO 1183
MATERIAL SPECIFIC PROPERTIES	DRY / COND		
Viscosity number	140 / *	cm³/g	ISO 307, 1157, 1628

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