

# Akulon<sup>®</sup> S223-HPG5

## PA66-I-GF25

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

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

## Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
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
<b><i>OTHER PROPERTIES</i></b>		<b><i>DRY / COND</i></b>	
Water absorption	5.5 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1290 / –	kg/m <sup>3</sup>	ISO 1183
<b><i>MATERIAL SPECIFIC PROPERTIES</i></b>		<b><i>DRY / COND</i></b>	
Viscosity number	140 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628