

# Akulon<sup>®</sup> K224–TG9

## PA6–GF45

45% Glass Reinforced

Print Date: 2024–10–15

<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)	0.15 / *	%	ISO 294–4
Molding shrinkage (normal)	0.95 / *	%	ISO 294–4
<b><i>MECHANICAL PROPERTIES</i></b>			
	<i>DRY / COND</i>		
Tensile modulus	14500 / 9100	MPa	ISO 527–1/–2
Stress at break	223 / 145	MPa	ISO 527–1/–2
Strain at break	4 / 6	%	ISO 527–1/–2
Tensile modulus (200°C)	4400	MPa	ISO 527–1/–2
Stress at break (200°C)	49	MPa	ISO 527–1/–2
Strain at break (200°C)	8	%	ISO 527–1/–2
Charpy impact strength (+23°C)	100 / 115	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	95 / 95	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	20 / 35	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	13 / 13	kJ/m <sup>2</sup>	ISO 179/1eA
<b><i>THERMAL PROPERTIES</i></b>			
	<i>DRY / COND</i>		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	210 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	220 / *	°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)	0.5 / *	E–4/°C	ISO 11359–1/–2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695–11–10
Thickness tested	1.5 / *	mm	IEC 60695–11–10

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## Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
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)	3.5 / 14	–	IEC 62631–2–1
Relative permittivity (1 MHz)	5.2 / 4.5	–	IEC 62631–2–1
Dissipation factor (100 Hz)	50 / 3000	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	150 / 1200	E–4	IEC 62631–2–1
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 62631–3–1
Surface resistivity	– / 1E14	Ohm	IEC 62631–3–2
Electric strength	25 / 20	kV/mm	IEC 60243–1
Comparative tracking index	600 / 600	V	IEC 60112

### *OTHER PROPERTIES*

#### *DRY / COND*

Water absorption	5 / *	%	Sim. to ISO 62
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1510 / –	kg/m <sup>3</sup>	ISO 1183

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