

# Akulon<sup>®</sup> Ultraflow K–FKGS6/B

## PA6–GF30 FR(17)

30% Glass Reinforced, Heat Stabilized, Flame Retardant, High Flow

Print Date: 2024–05–30

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage [parallel]	0.21 / *	%	Sim. to ISO 294–4
Molding shrinkage [normal]	0.77 / *	%	Sim. to ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	12000 / 8300	MPa	ISO 527–1/–2
Stress at break	155 / 105	MPa	ISO 527–1/–2
Strain at break	2.3 / 3.6	%	ISO 527–1/–2
Flexural modulus	11500 / 8000	MPa	ISO 178
Flexural strength	240 / 165	MPa	ISO 178
Charpy impact strength (+23°C)	55 / 55	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	60 / 60	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 14	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	12 / 12	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	205 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	215 / *	°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)	1.1 / *	E–4/°C	ISO 11359–1/–2
Burning Behav. at 1.5 mm nom. thickn.	V–0 / *	class	IEC 60695–11–10
Thickness tested	1.5 / *	mm	IEC 60695–11–10
Burning Behav. at 3.0 mm nom. thickn.	V–0 / *	class	IEC 60695–11–10

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## Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Thickness tested	3 / *	mm	IEC 60695–11–10
Burning Behav. at 0.75 mm nom. thicken.	V–0 / *	class	IEC 60695–11–10
Thickness tested	0.75 / *	mm	IEC 60695–11–10
Oxygen index	30 / *	%	ISO 4589–1/–2
Glow Wire Flammability Index GWFI	960 / –	°C	IEC 60695–2–12
GWFI (Thickness (1) tested)	0.75 / –	mm	IEC 60695–2–12
Glow Wire Flammability Index GWFI	960 / –	°C	IEC 60695–2–12
GWFI (Thickness (2) tested)	3 / –	mm	IEC 60695–2–12
Glow Wire Ignition Temperature GWIT	800 / –	°C	IEC 60695–2–13
GWIT (Thickness (1) tested)	0.75 / –	mm	IEC 60695–2–13
Glow Wire Ignition Temperature GWIT	875 / –	°C	IEC 60695–2–13
GWIT (Thickness (2) tested)	3 / –	mm	IEC 60695–2–13

## ELECTRICAL PROPERTIES

### DRY / COND

Relative permittivity (100Hz)	3.5 / 10	–	IEC 62631–2–1
Relative permittivity (1 MHz)	3.4 / 4	–	IEC 62631–2–1
Dissipation factor (100 Hz)	60 / 3000	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	120 / 700	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	33 / 30	kV/mm	IEC 60243–1
Comparative tracking index	325 / –	V	IEC 60112

## OTHER PROPERTIES

### DRY / COND

Water absorption	4.5 / *	%	Sim. to ISO 62
Humidity absorption	1.3 / *	%	Sim. to ISO 62
Density	1550 / –	kg/m <sup>3</sup>	ISO 1183

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