Property Data

Envalior
Imagine the Future

Akulon® K223-TP4

PA6-I

Impact Modified

Print Date: 2023-09-28

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage (parallel)	1.4 / *	%	ISO 294-4
Molding shrinkage (normal)	1.7 / *	%	ISO 294-4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	2100 / 625	MPa	ISO 527-1/-2
Nominal strain at break	>50 / >50	%	ISO 527-1/-2
Yield stress	52 / 30	MPa	ISO 527-1/-2
Yield strain	4 / 30	%	ISO 527-1/-2
Flexural modulus	1900 / 600	MPa	ISO 178
Flexural strength	75 / 25	MPa	ISO 178
Charpy impact strength (+23°C)	N / N	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	65 / 75	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	18 / 25	kJ/m²	ISO 179/1eA
THERMAL PROPERTIES	DRY / COND		
Temp. of deflection under load (1.80 MPa)	55 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	130 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	1.2 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.2 / *	E-4/°C	ISO 11359-1/-2
Glow Wire Flammability Index GWFI	700 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	2 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	700 / -	°C	IEC 60695-2-12

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PROPERTIES	*TYPICAL DATA*	*UNIT*	*TEST METHOD*
GWFI (Thickness (2) tested)	1.5 / –	mm	IEC 60695–2–12
Glow Wire Ignition Temperature GWIT	725 / –	°C	IEC 60695–2–13
GWIT (Thickness (1) tested)	2 / –	mm	IEC 60695–2–13
Glow Wire Ignition Temperature GWIT	725 / –	°C	IEC 60695–2–13
GWIT (Thickness (2) tested)	1.5 / –	mm	IEC 60695–2–13
ELECTRICAL PROPERTIES	***DRY / COND***		
Relative permittivity (100Hz)	3.1 / 10	–	IEC 62631–2–1
Relative permittivity (1 MHz)	2.7 / 3.5	–	IEC 62631–2–1
Dissipation factor (100 Hz)	30 / 1600	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	160 / 1000	E–4	IEC 62631–2–1
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 62631–3–1
Surface resistivity	– / 5E14	Ohm	IEC 62631–3–2
Electric strength	27 / 20	kV/mm	IEC 60243–1
Comparative tracking index	* / 600	V	IEC 60112
OTHER PROPERTIES	***DRY / COND***		
Water absorption	8.5 / *	%	Sim. to ISO 62
Humidity absorption	2.3 / *	%	Sim. to ISO 62
Density	1070 / –	kg/m³	ISO 1183

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