Property Data

Envalior
Imagine the Future

EcoPaXX® Q–KGS6

PA410–GF30 FR(40)

30% Glass Fiber Reinforced, Flame Retardant (halogen free)

Print Date: 2025–10–25

EcoPaXX® Q–KGS6 is a versatile halogen–free flame–retarded long aliphatic polyamide with UL94 V0 & CTI 600V rating for use in various connectors and housings. It offers excellent retention of electric properties upon humidity uptake

Sustainability

Bio–based

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage (parallel)	0.5 / *	%	ISO 294–4
Molding shrinkage (normal)	1.33 / *	%	ISO 294–4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	10000 / 7700	MPa	ISO 527–1/–2
Stress at break	135 / 90	MPa	ISO 527–1/–2
Strain at break	2.5 / 3.8	%	ISO 527–1/–2
Tensile modulus (120°C)	5000 / –	MPa	ISO 527–1/–2
Stress at break (120°C)	60 / –	MPa	ISO 527–1/–2
Strain at break (120°C)	3.2 / –	%	ISO 527–1/–2
Tensile modulus (160°C)	3900	MPa	ISO 527–1/–2
Stress at break (160°C)	45	MPa	ISO 527–1/–2
Strain at break (160°C)	3.5	%	ISO 527–1/–2
Charpy impact strength (+23°C)	40 / 45	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	7 / 7.5	kJ/m²	ISO 179/1eA
THERMAL PROPERTIES	DRY / COND		
Melting temperature (10°C/min)	250 / *	°C	ISO 11357–1/–3

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Temp. of deflection under load (1.80 MPa)	220 / *	°C	ISO 75–1/–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
Thickness tested	3 / *	mm	IEC 60695–11–10
Glow Wire Flammability Index GWFI	960 / –	°C	IEC 60695–2–12
GWFI (Thickness (1) tested)	0.8 / –	mm	IEC 60695–2–12
Glow Wire Ignition Temperature GWIT	775 / –	°C	IEC 60695–2–13
GWIT (Thickness (1) tested)	0.8 / –	mm	IEC 60695–2–13
ELECTRICAL PROPERTIES	**DRY / COND**		
Volume resistivity	>1E13 / 1E12	Ohm*m	IEC 62631–3–1
Surface resistivity	– / 6E13	Ohm	IEC 62631–3–2
Electric strength	40 / 30	kV/mm	IEC 60243–1
Comparative tracking index	600 / –	V	IEC 60112
OTHER PROPERTIES	**DRY / COND**		
Humidity absorption	1.1 / *	%	Sim. to ISO 62
Density	1400 / –	kg/m³	ISO 1183