Property Data

Envalior
Imagine the Future

EcoPaXX® Q–DWX10

PA410–GF50

50% Glass Fiber Reinforced, Excellent Surface Properties, Drinking Water Grade, Food Contact Quality

Print Date: 2026–05–12

EcoPaXX® Q–DWX10 is a long aliphatic polyamide with excellent mechanical & flow performance for use in food contact & drinking water applications

Sustainability

Bio–based

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage (parallel)	0.13 / *	%	ISO 294–4
Molding shrinkage (normal)	0.73 / *	%	ISO 294–4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	16500 / 16000	MPa	ISO 527–1/–2
Stress at break	240 / 210	MPa	ISO 527–1/–2
Strain at break	3 / 3.3	%	ISO 527–1/–2
Tensile modulus (80°C)	12000 / –	MPa	ISO 527–1/–2
Stress at break (80°C)	140 / –	MPa	ISO 527–1/–2
Strain at break (80°C)	5.5 / –	%	ISO 527–1/–2
Tensile modulus (120°C)	4900 / –	MPa	ISO 527–1/–2
Stress at break (120°C)	75 / –	MPa	ISO 527–1/–2
Strain at break (120°C)	12 / –	%	ISO 527–1/–2
Tensile modulus (140°C)	4500	MPa	ISO 527–1/–2
Stress at break (140°C)	60	MPa	ISO 527–1/–2
Strain at break (140°C)	11	%	ISO 527–1/–2
Tensile modulus (160°C)	4000	MPa	ISO 527–1/–2

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Stress at break (160°C)	50	MPa	ISO 527–1/–2
Strain at break (160°C)	10	%	ISO 527–1/–2
Charpy impact strength (+23°C)	100 / 80	kJ/m²	ISO 179/1eU
Charpy impact strength (–30°C)	90 / 75	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	16 / 13	kJ/m²	ISO 179/1eA
Charpy notched impact strength (–30°C)	14 / 13	kJ/m²	ISO 179/1eA
Flexural modulus	15500 / 15000	MPa	ISO 178
Flexural strength	380 / 330	MPa	ISO 178
THERMAL PROPERTIES	**DRY / COND**		
Melting temperature (10°C/min)	250 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	200 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	235 / *	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.16 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.6 / *	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
Burning Behav. at 3.0 mm nom. thickn.	HB / *	class	IEC 60695–11–10
Thickness tested	3 / *	mm	IEC 60695–11–10
Glow Wire Flammability Index GWFI	900 / –	°C	IEC 60695–2–12
GWFI (Thickness (1) tested)	3 / –	mm	IEC 60695–2–12
Glow Wire Flammability Index GWFI	700 / –	°C	IEC 60695–2–12
GWFI (Thickness (2) tested)	1.5 / –	mm	IEC 60695–2–12
Glow Wire Ignition Temperature GWIT	750 / –	°C	IEC 60695–2–13
GWIT (Thickness (1) tested)	3 / –	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**		

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Electric strength	27 / –	kV/mm	IEC 60243–1
OTHER PROPERTIES	**DRY / COND**		
Water absorption	3 / *	%	Sim. to ISO 62
Humidity absorption	1.2 / *	%	Sim. to ISO 62
Density	1570 / –	kg/m³	ISO 1183