

EcoPaXX[®] Q–DWX10

PA410–GF50

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

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

Sustainability

Bio-based

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<i>RHEOLOGICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Molding shrinkage (parallel)	0.13 / *	%	ISO 294–4
Molding shrinkage (normal)	0.73 / *	%	ISO 294–4
<i>MECHANICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
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

Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
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/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	90 / 75	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	16 / 13	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	14 / 13	kJ/m ²	ISO 179/1eA
Flexural modulus	15500 / 15000	MPa	ISO 178
Flexural strength	380 / 330	MPa	ISO 178
<i>THERMAL PROPERTIES</i>			
	<i>DRY / COND</i>		
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
<i>ELECTRICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Electric strength	27 / -	kV/mm	IEC 60243-1
<i>OTHER PROPERTIES</i>			
	<i>DRY / COND</i>		
Water absorption	3 / *	%	Sim. to ISO 62
Humidity absorption	1.2 / *	%	Sim. to ISO 62
Density	1570 / -	kg/m ³	ISO 1183