

# EcoPaXX<sup>®</sup> Q210E–HU

## PA410

High Viscosity, Heat Stabilized, Food Contact Quality

EcoPaXX<sup>®</sup> Q210E–HU is a high viscous long aliphatic polyamide which offers excellent wear & friction properties at high humidity for use in gears, food conveyer belt parts and abrasive monofilaments. Q210E–HU is produced via underwater granulation.

### Sustainability

Bio-based

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage (parallel)	2.4 / *	%	ISO 294–4
Molding shrinkage (normal)	1.6 / *	%	ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	3000 / 1600	MPa	ISO 527–1/–2
Nominal strain at break	20 / >50	%	ISO 527–1/–2
Yield stress	85 / 55	MPa	ISO 527–1/–2
Yield strain	4.4 / 15	%	ISO 527–1/–2
Tensile modulus (80°C)	800 / –	MPa	ISO 527–1/–2
Tensile modulus (120°C)	600 / –	MPa	ISO 527–1/–2
Tensile modulus (140°C)	460	MPa	ISO 527–1/–2
Charpy impact strength (+23°C)	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	4.5 / 13	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	4.5 / 3.2	kJ/m <sup>2</sup>	ISO 179/1eA
Flexural modulus	2850 / 1400	MPa	ISO 178
Flexural strength	115 / 55	MPa	ISO 178

## Property Data

# EcoPaXX<sup>®</sup> Q210E–HU

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b>THERMAL PROPERTIES</b>			
	<i>DRY / COND</i>		
Melting temperature (10°C/min)	250 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	77 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	175 / *	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.9 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.8 / *	E–4/°C	ISO 11359–1/–2
Oxygen index	24 / *	%	ISO 4589–1/–2
<b>OTHER PROPERTIES</b>			
	<i>DRY / COND</i>		
Water absorption	5.8 / *	%	Sim. to ISO 62
Humidity absorption	2.1 / *	%	Sim. to ISO 62
Density	1090 / –	kg/m <sup>3</sup>	ISO 1183
<b>MATERIAL SPECIFIC PROPERTIES</b>			
	<i>DRY / COND</i>		
Viscosity number	210 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628

Property Data

# EcoPaXX<sup>®</sup> Q210E-HU

Viscosity–shear rate

