Property Data

Envalior
Imagine the Future

# EcoPaXX® Q–DWX6

## PA410–GF30

*30% Glass Reinforced, Excellent Surface Properties, Drinking Water Grade, Food Contact Quality*

Print Date: 2024–09–17

EcoPaXX® Q–DWX6 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) | 0.17 / * | % | ISO 294–4 |
| Molding shrinkage (normal) | 0.74 / * | % | ISO 294–4 |
| **MECHANICAL PROPERTIES** | DRY / COND | | |
| Tensile modulus | 9500 / 9300 | MPa | ISO 527–1/–2 |
| Stress at break | 190 / 170 | MPa | ISO 527–1/–2 |
| Strain at break | 3.3 / 3.5 | % | ISO 527–1/–2 |
| Tensile modulus (80°C) | 6900 / – | MPa | ISO 527–1/–2 |
| Stress at break (80°C) | 110 / – | MPa | ISO 527–1/–2 |
| Strain at break (80°C) | 8 / – | % | ISO 527–1/–2 |
| Tensile modulus (120°C) | 2800 / – | MPa | ISO 527–1/–2 |
| Stress at break (120°C) | 65 / – | MPa | ISO 527–1/–2 |
| Strain at break (120°C) | 15 / – | % | ISO 527–1/–2 |
| Tensile modulus (140°C) | 2500 | MPa | ISO 527–1/–2 |
| Stress at break (140°C) | 55 | MPa | ISO 527–1/–2 |
| Strain at break (140°C) | 14 | % | ISO 527–1/–2 |
| Tensile modulus (160°C) | 2200 | MPa | ISO 527–1/–2 |
| Stress at break (160°C) | 45 | MPa | ISO 527–1/–2 |

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| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|---|---|---|---|
| Strain at break (160°C) | 13 | % | ISO 527–1/–2 |
| Charpy impact strength (+23°C) | 65 / 50 | kJ/m² | ISO 179/1eU |
| Charpy impact strength (–30°C) | 60 / 50 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 11 / 8 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (–30°C) | 8.5 / 7.5 | kJ/m² | ISO 179/1eA |
| Flexural modulus | 9100 / 9000 | MPa | ISO 178 |
| Flexural strength | 285 / 255 | 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) | 190 / * | °C | ISO 75–1/–2 |
| Temp. of deflection under load (0.45 MPa) | 230 / * | °C | ISO 75–1/–2 |
| Coeff. of linear therm. expansion (parallel) | 0.22 / * | E–4/°C | ISO 11359–1/–2 |
| Coeff. of linear therm. expansion (normal) | 0.66 / * | 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 |

| OTHER PROPERTIES | DRY / COND | | |
|---|---|---|---|
| Water absorption | 4 / * | % | Sim. to ISO 62 |
| Humidity absorption | 1.5 / * | % | Sim. to ISO 62 |
| Density | 1360 / – | kg/m³ | ISO 1183 |