



Recycled Plastic Decking Joist – Technical Data Sheet



Product	Recycled Plastic Decking Joist
Colour	Black
Dimensions	50 × 120 × 3600 mm
Material	100% Recycled Mixed Thermoplastics
Manufacturer	LL Plastic Ltd

Product Description

LL Plastic recycled plastic decking joists are manufactured from high-quality mixed recycled thermoplastics, providing a durable, moisture-resistant, and long-lasting alternative to traditional timber substructures. Designed for low maintenance and long service life, they are suitable for residential, commercial, agricultural, and landscaping applications.

Composition

Contains recycled thermoplastics including Polyethylene (PE), Polypropylene (PP), PET, HDPE, and HIPS. UV stabiliser included. No colouring agents added. Mixing ratios are controlled to ensure consistent quality.

Intended Use

Decking substructures and joists, landscaping frameworks, walkways, and outdoor structures.

Note: Not intended for use as a primary structural beam unless specifically engineered and approved.

Key Benefits

Does not absorb moisture • Will not rot, rust, or crack • Resistant to insects and fungi • No chemical leaching into soil or groundwater • Long lifespan with minimal maintenance • 100% recyclable

Physical Properties

Property	Value	Test Standard
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Density (average)	0.987 ± 0.010 g/cm ³	MSZ EN ISO 1183-1:2019
Moisture absorption	< 0.2 wt%	ISO 175
Melting temperature	≈ 230 °C	Internal reference

Thermal Expansion

Length at 20 °C: 3600 mm

Length at −1 °C: 3594 mm

Coefficient of linear expansion: ≈ 0.08 mm per metre per °C ($7.9 \times 10^{-5} / ^\circ\text{C}$). Allow adequate expansion gaps during installation.

Mechanical Performance – Flexural Test (1000 mm span)

Parameter	Result
Break force	10,522.7 N
Displacement at break	26.81 mm
Young's modulus	1,733.9 N/mm ²

Screw Pull-Out Resistance

Screw size: 4 × 50 mm • Test speed: 10 mm/min • Pre-drilling: No • Average pull-out force: 2595 N ± 6%

Fire Performance

Fire performance testing available on request. Classification to EN 13501-1 may vary depending on installation.

Disclaimer

The information provided is for guidance only and does not constitute a guarantee of performance. LL Plastic Ltd reserves the right to amend specifications without prior notice.

Contact

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