



Joist Span & Load Guidance – 50 x 120 x 3600 mm



Span and load guidance based on laboratory flexural testing of LL Plastic recycled plastic joists (50 x 120 mm) using a 1000 mm support span and conservative safety factors.

Understanding the Load Values

What is kN?

kN stands for kilonewton, a unit of force commonly used in engineering. For practical understanding: **1 kN ≈ 102 kg** of load (approximate).

What is UDL?

UDL means **Uniformly Distributed Load**. This is a load spread evenly along the entire length of the joist (for example people standing across a deck, furniture, or snow). UDL values are given in **kN per metre (kN/m)**.

What is a point load?

A point load is a single concentrated load applied at one point on the joist, typically at mid-span (for example a heavy object or a hot tub leg).

Joist Span & Load Guidance Table

Span (mm)	Max UDL L/200 (kN/m)	Max UDL L/300 (kN/m)	Max Point Load L/200 (kN)	Max Point Load L/300 (kN)
300	58.46	58.46	8.77	8.77
400	32.88	32.88	6.58	6.58
450	25.98	25.98	5.85	5.85
500	21.05	21.05	5.26	5.26
600	14.61	14.61	4.38	4.38
700	10.74	9.32	3.76	3.76
800	8.22	6.24	3.29	3.12
900	6.50	4.38	2.92	2.47
1000	4.79	3.20	2.63	2.00

Disclaimer: Values are guidance only, derived from laboratory test data and conservative safety factors. Final design should consider creep, temperature effects, connection detailing, and project-specific loads. For commercial or public projects, structural verification is recommended.