

NationalPlastics

REVERSIBLE RIBBED AND GROOVED SOLID COMPOSITE DECKING BOARDS

Load Span Data Sheet

All National Plastics decking products have been load tested in accordance with 'BS EN 1195:1998 (Performance of structural floor decking).'

Table 1. Reversible ribbed and grooved decking board point loads tested at different spans.

Table 1 shows point loads against spans to ensure you can choose the right product for your project and also the correct bearer spacing to ensure you comply with 'BS EN 1991-1-1:2002 Actions on structures - Imposed loads for buildings'.

Reversible ribbed and grooved decking board				
SPAN (mm)	405	455	500	600
Max point load (kN)	4.5	3.6	3.0	2.4

Table 2. Point loads requirements for different flooring media (BS EN 1991-1-1:2002).

Table 2 below shows an extract from BS EN 1991 that demonstrates what point loads the flooring media should be able to support. These loads are mid-span live loads. Dead loads should be supported in a different manner whereby the load is spread over the support beams to ensure long term board deflection is prevented. If in doubt, please contact our technical department for further information.

BS EN 1991-1-1:2002 Actions on structures - Imposed loads for buildings	Point Load kN (mid-span)
Balconies	2.0
Walkways – Light duty	2.0
General residential	2.0
Offices for general use	2.7
Public, institutional and communal dining rooms and lounges, cafes and restaurants	3.0
Classrooms	3.0
Assembly areas with fixed seating	3.6
Walkways – General duty	3.6
Assembly areas without seating, concert halls and bars	3.6
Shopping areas – General	3.6
Stairs & landings in all buildings incl. hotels & institutional buildings subject to crowds	4.0
Corridors, hallways, aisles, in all buildings incl. hotels & institutional buildings subject to crowds or wheeled vehicles incl. trolleys	4.5
Walkways heavy duty (high density pedestrian traffic including escape routes)	4.5

It is also important to ensure you design your substructure to comply with the uniformly distributed load (UDL) values (commonly expressed in kN/m²), which are also expressed in BS EN 1991.