

## Load Span Tables for ecodek® AT & ecodek® HD

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

## Table 1. ecodek® AT and ecodek® HD point loads tested at different spans.

Table 1 shows point loads against spans to ensure you can choose the right product (either ecodek® AT or ecodek® HD) 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'.

|                     | ecodek® AT |     |     |     | ecodek® HD |     |     |     |
|---------------------|------------|-----|-----|-----|------------|-----|-----|-----|
| SPAN (mm)           | 300        | 350 | 405 | 455 | 405        | 455 | 500 | 600 |
| Max point load (kN) | 3.5        | 2.8 | 2.4 | 2.0 | 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<br>(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  $kN/m^2$ ), which are also expressed in BS EN 1991.