

Litestructures

Litedeck Calculations

Litestructures

Creative Structures in Aluminium

Litedeck- Structural Specification

Lite Structures stage decking system is manufactured from high tensile Aluminium alloy grade 6005t6. The material has a 0.2% proof stress of 225MN/m². The sections are extruded and comply with BSEN755-2.

The decking frame is constructed through the TIG welding process and is carried out in accordance to specifications laid out in BS3019:part 1: Specification TIG welding of aluminium

The deck is made from 19mm standard grade plywood similiar to thet used on truck platforms. It has a high resistance to point loads and can easily take loads usually associated with staging.

A set of calculations are available which show that litedeck exceeds BS6399:PART1:1996: Code of practise for dead and imposed loads. The calculations are performed to comply with BS8118:1991:structural use of Aluminium 5268:Structural use of timber: part2: Code of practice for permissible stress design, materials workmanship 1984. The staging system as a whole will erect to comply with the IstructE tempory demountable structures- guide on design, procurement & use- 2nd edition March 1999

If you require further information about any of litestructures products please contact

Lite Structures (GB) Ltd.
Unit 55 Lidgate Crescent,
Langthwaight Grange Industrial Estate
South Kirkby, Wakefield WF9 3NR

Tel. 01977 659800
Fax. 01977 659801
e mail: technical@litestructures.co.uk

Load

Each Litedeck is designed to take a load of 7.5kN per square metre.

An 8x4 section weighs 54KG.

Summary

The following calculations have been performed in accordance with BS 5268 Part 2 1984 for the plywood top and BS8118:Part 2 :1991 For the aluminium frame.

The calculations show that the deck units can sustain a 5KN/m² imposed load as specified in the instructE 'temperory demountable structures' - Guide on design, procurement & use - 2nd. edition March 1999.