

References - Health and Safety

MetFloor®

British Standards compliant

The following instructions are designed to help composite flooring contractors.

Composite Floor Deck

1. BS 5950: Part 4 1994. Structural use of steelwork in building: Code of practice for design of composite slabs with profiled steel sheeting.

Composite Steel Beams

2. BS 5950: Part 3: 1990. Design in composite construction: Section 3.1: 1990. Code of practice for design of simple and continuous composite beams.

Profiled Steel Deck

3. BS 5950: Part 6 1995. Structural use of steelwork in building: Code of practice for design of light gauge profiled steel sheeting.

Fire Resistance

4. BS 5950: Part 8 2003. Structural use of steelwork in building: Code of practice for fire resistant design.

Concrete

5. BS 8110: Part 1: 1997 Structural use of concrete: Code of practice for design and construction.
6. BS 8110: Part 2: 1985 Structural use of concrete: Code of practice for special circumstances.

Reinforcement

7. BS 4483: 2005 Specification for steel fabric for the reinforcement of concrete.
8. BS 4449: 2005 Specification for carbon steel bars for the reinforcement of concrete.
9. BS 4482: 2005 Steel wire for the reinforcement of concrete products specification.

Eurocode 3 and 4

10. EC3 ENV 1993 - 1 - 3: 2001 Design of steel structures. Supplementary rules for cold formed thin gauge members and sheeting.
11. EC4 ENV 1994 - 1 - 1: 1994 Design of Composite steel and concrete structures. General rules for building.
12. EC4 ENV 1994 - 1 - 2: 2001 Design of composite steel and concrete structures. Structural fire design.
13. SCI - P - 076 : Design guide on the vibration of floors. SCI in association with CIRIA (1989).

Health and Safety

Handling Hazards

Handle Zinc coated steel decking with care as it may be delivered with soluble protective layer of oil which can cause contamination to lacerated skin. You should also wear adequate protective gloves and clothing when handling decking as it will have sharp edges and corners.

Eye Hazards

Always wear eye protectors conforming to the specification in BS 2092:1987 when breaking the strapping around bundles as the sudden release of tension creates can be very hazardous. You should also wear eye protection when cutting steel as flying particles of metal can also be very dangerous.

Noise Hazards

Make sure you wear adequate ear defenders when handling or cutting decking and shot firing as the noise levels can be hazardous.

Respiratory Hazards

Fumes containing oxides of iron and zinc are produced during welding or flame cutting and if inhaled these may cause metal fume fever; this is a short-lasting condition with symptoms similar to those of influenza. In conditions of exposure to such hazards, the use of respiratory equipment is recommended.

Explosives and Fumes

Take extra care when using shot fired fixings as explosives and fumes can create hazards.

Occupational Exposure Limits

Limits for iron and zinc oxides are 5g/m³ (8 hours TWA) and 10mg/m³ (10 minutes TWA). (OE recommendation)

Summary of Protective Measures

Make sure that you wear adequate protective gloves and clothing and safety goggles. Ensure adequate ventilation and use personal protective equipment. Follow the instructions for safe handling, use, disposal and control of cartridges issued by equipment supplier. Ensure adequate ventilation and/or use personal respiratory protective equipment. Use appropriate ear defenders or earplugs.

General Safety Points

Make sure you follow the good practice outlined here and in SCI publications:

- Always fix deck securely before using as a working platform
- Always employ personal safety measures such as hard hats and protective clothing
- Always employ all site safety measures such as safety nets, edge protection, and properly tied ladders
- **Don't** heap concrete or drop from any height
- **Don't** leave any unfixed decking sheets
- **Don't** cut holes/voids in the deck before concreting
- **Don't** place props on uncured concrete
- **Don't** put heavy loads on unprotected deck