

Transport and Handling

MetFloor®

The following instructions are designed to help composite flooring contractors.

Receiving the decking

When you receive the composite floor decking it will be packed into bundles of up to 24 sheets and the sheets secured with metal banding. A single bundle may be up to 950mm wide (the overall width of a single sheet) by 750 mm deep, and may weigh up to 2.5 tonnes, depending on sheet length (average weight is about 1.5 tonnes). The loads will normally be delivered by articulated lorries approximately 16m long with a maximum gross weight of up to 40 tonnes and a turning circle of approximately 19m. The main contractor should ensure that there is suitable access and appropriate standing and off-loading areas.

Each bundle has an identification tag. Decking contractor operatives should check the information on each tag - or, if they are not on site, the main contractor - as soon as they have arrived. In particular, the stated sheet thickness should be checked against the requirement specified on the contract drawings. Operatives should also make a visual inspection to ensure there is no damage.

Lifting bundles

Lift bundles directly from the lorry. You should never off-load by tipping, dragging, dropping or any other improvised means.

Take special care when lifting the decking bundles - we recommend using protected chain slings, as unprotected chain slings can damage the bundle during lifting. When synthetic slings are used there is also a risk of severing them on the edges of the decking sheets.

If you use timber packers ensure that they are secured to the bundle before you lift them so that when the slings are released they do not fall to the ground. You must never lift the bundles using the metal banding.

Positioning the decking

Prepare the support steelwork to receive the decking before you lift the bundles onto it. Make sure the top surface of the underlying beams is reasonably clean. When through-deck welding of shear studs is specified, you should ensure that the tops of the flanges are free of paint or galvanising.

Use the identification tags to ensure that the bundles are positioned on the frame at the correct floor level and in the nominated bay shown on the deck layout drawing. Position the bundles so that the interlocking side laps are on the same side. This will enable you to lay the decking progressively without having to turn the sheets. The bundles should also be positioned in the correct span orientation, and not at 90° to it. Take care to ensure that the bundles are not upside down, particularly with trapezoidal profiles. The embossments should be oriented so that they project upwards.

Placing the decking

Break open bundles and install decking only if all the sheets can be positioned and secured. You will need adequate time as well as good weather. Check the decking layout drawing to make sure that any temporary supports that are needed are in place before. You will normally get access for installation by using ladders connected to the steel frame. Once they have started laying out the sheets, the erectors will build their own working platform by securely fixing the decking as they progress. Start laying out the sheets at the locations indicated on the decking layout drawings. These are normally at the corner of the building at each level; to reduce the number of 'leading edges' (that is, the unprotected edges where the decking is being laid).

When you have properly positioned the bundles there should be no need to turn the sheets manually, and no doubt which way up the sheet should be fixed. Slide the individual sheets and, where possible, fix to the steelwork before moving onto the next sheet - this will minimise the risk of an accident as a result of movement of a sheet when it is being used as a platform. (However, for setting-out purposes, it may be necessary to lay out an entire bay using a minimum number of temporary fixings before fully securing the sheets later). Position the sheets to provide a minimum bearing of 50 mm on the steel support beams. Butt the ends of adjacent sheets together - a gap of up to 5 mm is normally considered effective in not allowing excessive seepage but, if necessary, you can tape the ends of the sheets together. When end gaps are greater than 5 mm, it is normally fine to seal them with an expanding foam filler. The longitudinal edges should be overlapped, to minimise concrete seepage.

Cutting sheets

Where necessary, you can cut the sheets using a grinder or a nibbler. However, you should keep field cutting to a minimum (it is only really necessary where a column or other obstruction interrupts the decking). Ensure that gaps adjacent to the webs of columns are filled in with off-cuts or thin strips of steel.

Decking sheets shown as continuous on the decking layout drawing should never be cut into more than one length. Also, sheets should never be severed at the location of a temporary support, and the decking should never be fastened to a temporary support.

As you progress, you should dispose of unwanted scraps and off-cuts in a skip placed at the right level to where you are working. Position the skip carefully over a support beam to avoid overloading the decking. If you do not have a skip, gather the scraps for collection by the main contractor as soon as possible. Secure partially used bundles to avoid individual sheets moving in strong winds.