

Structural Steel

About Conform

Conform is a permanent metal formwork ceiling suspension system that offers superior pan performance, reduced side lap fasteners and improved fire resistant design.

Conform composite decking is ideal for floor slab construction in residential, commercial and many industrial applications. It is suitable for use in both steel frame and concrete frame construction, including band beam applications. It has been successfully used in post-tensioned slabs.

Whilst generally used in composite construction, Conform can be used as an effective cost formwork in conventional slab applications. It has long been speculated that composite decks continue to contribute to slab strength during a fire. This can result in significant cost savings in slabs.

Contribution is real, measurable and can be incorporated into slab designs. This can result in significant cost savings in slabs.

Fire tests on composite decking slabs have consistently reported that the temperature of the deck directly exposed to the fire is cooler than the furnace temperature.

Benefits

1 Exceptional Performance

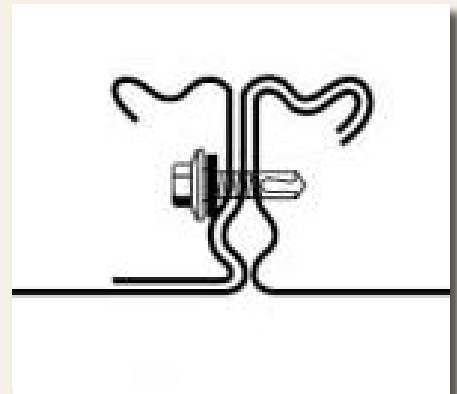
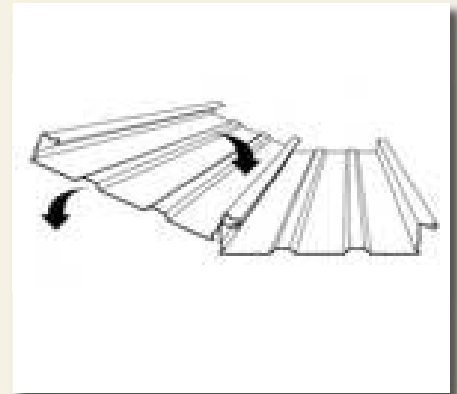
Conform has exceptional performance because of the fully enclosed re-entrant rib shape that can be seen in the illustration. Steel retains some residual strength in a fire, even up to temperatures above 800°C.

More commonly, contribution from steel is limited to temperatures below 600°C. For a two-hour fire test the maximum rib temperature recorded on Conform decking rib is 533°C, well below the commonly applied limiting temperature of 600°C.

For design purposes the reinforcement contribution of the Conform deck during a fire has been limited to those portions of the rib below that limiting temperature.

2 FER Potential Elimination

The method of applying the benefits of Conform composite decking in a fire design is simple. Under some conditions it will be found that no additional fire emergency reinforcement (FER) will be needed. It will still be necessary to incorporate shrinkage and temperature mesh for crack control.



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2 FER Potential Elimination Continued

Conform composite decking is ideal for floor slab construction in residential, commercial and many industrial applications. It is suitable for use in both steel frame and concrete frame construction, including band beam applications. In addition, it has been successfully used in post-tensioned slabs. Whilst generally used in composite construction, Conform decking can be used as an effective cost formwork in conventional slab applications.

Applications

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It is suitable for use in both steel frame and concrete frame construction, including band beam applications. In addition, Conform composite decking has been successfully used in post-tensioned slabs.

Whilst generally used in composite construction, Conform decking can be used as an effective lost formwork in conventional slab applications.

Conform composite decking is only indented for use in composite or non-composite suspended floor slab applications and strictly as shown in this and other current Stramit technical literature. Do not use for any other purpose.

Thickness/Mass

Conform decking is generally offered in three standard base metal thicknesses of 0.75mm, 1.0mm. Other thicknesses may be supplied, dependent on lead times and availability. Conform end span accessory is generally offered in 1.0mm base metal thickness.

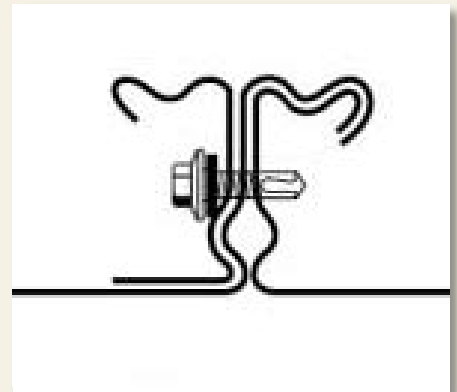
Materials

Conform decking is manufactured from high-tensile steel with a Z350/Z450 galvanised coating, in full conformance with AS1397.

Engineering Specifications

Maintaining the correct specification of composite decking is important to ensure that all design requirements are met including:

- The concrete formwork shall be 0.75 (or 1.00) mm thick Conform decking to 55mm high ribs spaced at 300mm centres. Material shall be G550 high-tensile steel in accordance with AS1397, with a Z350/Z450 galvanised coating.



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Engineering Specifications

- Individual sheets shall be hinged into position in accordance with the manufacturer's instructions.
- Prior to concrete pouring, foot traffic and other construction loads being applied, the Conform decking shall be propped in accordance with our specifications.
- Reinforcement and concrete placement shall be as directed by the engineer.
- All work is to be completed in a workmanlike manner and all dirt, mud, debris, screws, rivets, cutting, etc are to be removed prior to concrete pouring. Props are not to be removed until authorised by the site engineer.

Harsh Environments

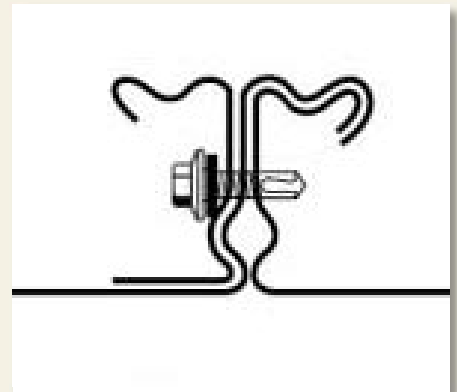
Conform decking has excellent durability. However, in applications close to marine or severe industrial environments, or closer than 450mm to the ground, please contact us for a more detailed assessment of your needs, and for guidance on any precautions that may be required.

Compatibility

Direct contact between galvanised steel and copper, or water run-off from copper onto galvanised steel must be avoided, as premature corrosion will result.

Effective Spans

In the construction phase, the effective span is the lesser distance between permanent supports and clear span +55mm. A single span has two permanent supports. A double span has three permanent supports. Continuous spans have four permanent supports.



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