

TECHNICAL BULLETIN # 04

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Formance

Electrical wiring in SIP panels

Formance panels can have electrical wiring run within the EPS core where required to reduce the need for a cavity on the internal side of the panel.

This method uses pre-made 40mm diameter chases 40mm (holes) within the core of the Formance SIP panel made during the manufacturing process. The decision to allow for chases in the panels needs to be made at the time the panel layout drawings (PLDs) are created.

When planning the wiring layout try and locate as many sockets as possible on the internal timber framed walls, to minimise the quantity of specialized EPS-safe cable required. This also helps to maintain the thermal integrity and airtightness of the panels.

As with any project, careful planning is the secret to successful outcomes.

Cabling

If the electrical wire is to be run within the panel the sheathing is to be a non-mitigatory type that will not react with the EPS (Expanded Polystyrene core). A conduit can be used instead to provide separation between the cable and the EPS if desired.

Outlet location

Good planning of outlet locations is essential to a desirable outcome. Consider aligning plug and switch positions with existing chases. Should non-standard chases in the panel core be required after the panels are located, it is possible to create these on site with a 'hot-ball' rod to melt the EPS core, The panel should be oriented vertically when forming a chase.



Chases (if included)

Chases are not typically included in roof panels, except by special request. Where they are included in wall panels, they are located centrally between the OSB skins.

A full-size wall panel (1220mm wide) will, unless otherwise specified, have 2 horizontal chases: 1 at 250mm and 1 at 1050mm from the bottom of the panel and a centralized full height vertical chase. These chase locations are visible on the PLDs and indicated by fine red lines, refer Figure 1.

Panels that are not full width can still have electrical chases, this is visible on the shop drawings,

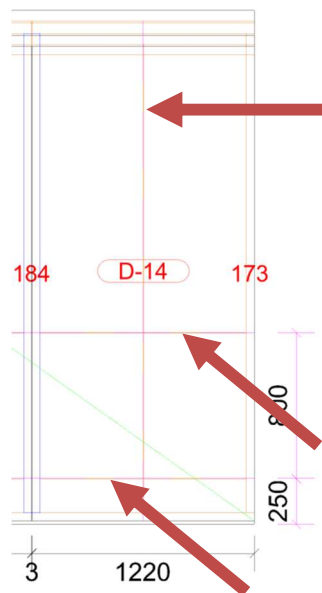


Figure 1: Typical panel elevation showing locations of electrical chases.