# Installation Instructions



## HK<sup>™</sup> TIES FOR FOR VERTICAL POUR APPLICATIONS FOR INSULATED STRUCTURAL CONCRETE PANELS

### Description

HK<sup>™</sup> panel ties for vertical pour (VP) applications are specifically designed for use in cast-in-place and modular precast applications. They provide a fast, efficient method of insulating concrete structures without compromising the lowmaintenance/high durability of concrete walls.

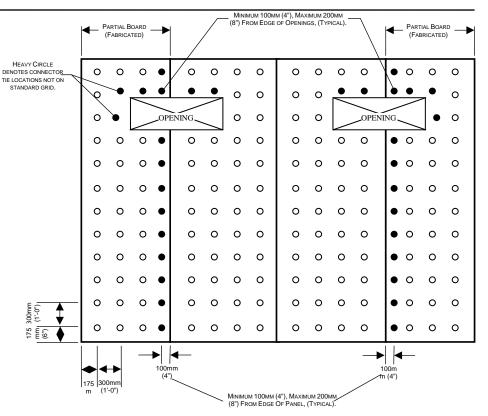
Each sheet of insulation should be marked on one side with dots on 305mm (12-inch) centers, indicating where ties would normally be inserted into the foam.

The HK<sup>™</sup> VP tie is designed to work with two clips per tie to hold the foam in place during casting. The clips fit into recessed areas on the tie.

### Applications

The HK<sup>™</sup> VP ties may be used in most modular precast and cast-inplace applications where the following conditions apply:

- The fascia, or outside layer, is 75mm (3") thick or less for modular precast applications.
- Fascias 10 feet or taller are unsupported, if wall section has 50mm thick foam, or use VPT ties for tall walls (fascias less than 10 feet tall may be supported or unsupported).
- The concrete compressive strength at the time of lifting is at least 17.2Mpa (2,500 psi).



### Installation

- Attach one clip to the tie. The clip slides into the recessed area on the tie from the side. The two retention arms of the clip will snap into place first. Positive retention is ensured when you hear a second "click" and the clip is properly seated on the tie.
- Push the tie with one clip through the foam insulation at a location marked by a dot.
- Move to the other side of the foam insulation and slide the second clip into the recessed area on the tie, just protruding from the foam. The tie is now installed.

Repeat the above steps for each tie.

#### Around Openings/At Panel Edges

Ties should be no closer than 100mm (4") and no further than 200mm (8") from the edge of the foam. In these cases, you may need to either shift ties away from the panel edges or openings or add extra ties so this spacing is maintained.

#### **Concrete Placement**

While placing the concrete inside the forms, place the concrete on either side of the foam as equally as possible. Make certain the concrete level on one side does not vary from the level on the opposite side by more that 18 inches.

# $\operatorname{HK}^{{}^{\mathrm{\tiny TM}}}$ TIES FOR INSULATED STRUCTURAL CONCRETE PANELS

#### **Follow These Instructions**

It is the sole responsibility of the contractor to install the HK ties in accordance with these published instructions. The presence of an HK Composites representative at the job site does not relieve contractor from the responsibility to follow these published installation instructions. Failure to follow these instructions could cause injury, death or property damage. In no event shall HK Composites be responsible for any loss or damage caused by improper installation or misuse of the products or systems described herein. Our recommendations should not be taken as inducements to infringe on any patent or violate any law, safety code or insurance regulation

#### **More Information**

For more information on HK ties please contact your local distributor to request the Product Specification.



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U.S. Patents: 5,519,973; 5,830,399; 5,987,834; 5,809,723; 5,673,525; 5,996,297; and 6,112,491. Canadian Patents: 2,187,284 & 2,237,793. Australian Patent: 687,367. European Patents: 0754265 & 0954652. Mexican Patent: 201,274. Chinese Patent: ZL 95192498.2. Japanese Patent: 3,604,144.

Pub. No. HK-VP-II, September 2007