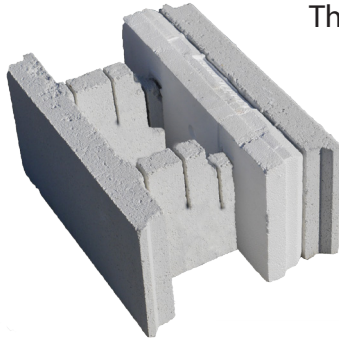


Construction Basics and Installation of Korfil Hi-R®, Hi-R® H, Spec-Brik® Hi-R® Units



QUICK POINTS

- When properly oriented the insulation in the units will span the entire length of the unit and the inserts will be on the side of the core towards the exterior of the wall
- Some masons prefer to remove the inner portion of the insert when laying the first course of Hi-R units.
- Inserts should form flush and tight lap joints with surrounding inserts in the wall when placed correctly
- Corners, ends, jambs and joints may be constructed using insulated concrete masonry fittings.
- Bond beams can be built using Hi-R units that modified to be knock out bond beam units, or unmodified Hi-R H units

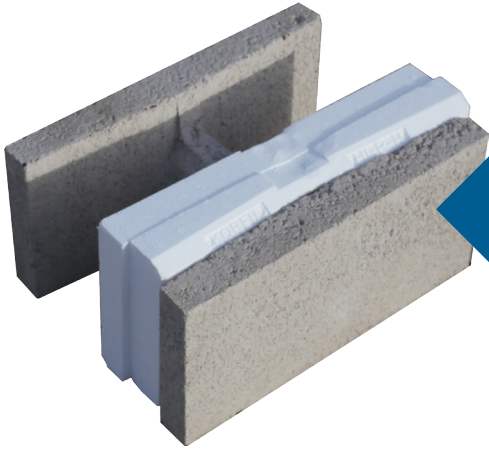


The Korfil Hi-R and Hi-R H wall systems from the Concrete Products Group are versatile high performance energy efficient wall systems that allows fast construction of energy efficient walls. The finished wall combines the durability of double exposed masonry with integral insulation, providing superior thermal properties. R-values of up R-18 are available with

Hi-R H and lightweight mix designs. In this Design Note, we are going to discuss some basics regarding proper installation of the units.

Typical Applications

The Korfil Hi-R wall system is suitable for partially grouted or fully grouted single wythe masonry walls with integral insulation. Korfil Hi-R H is designed for fully grouted single wythe walls, and due to its single web design, it offers the highest performance for thermal values. Both systems offer significant increases in R-Value over conventional masonry, and offer the durability advantages of double exposed concrete masonry since the insulation is placed within the block's cores.



Right Side Up

The units will arrive on the shipping pallet with the insulation inserts in place. The units are right side up when the insulation insert spans the entire length of the top of the unit.

Insulated Inserts Toward Exterior

Typically the units should be placed so that the insulation inserts are on the side of the unit's core that is toward the exterior of the wall.

Insulation Inserts form Lap Joints

The Hi R and Hi-R H units are designed to be placed so that the insulation inserts form a lap joint with adjacent inserts both above and below and side to side. The inserts are formed of two interlocking pieces in order to form these joints. The inserts should be flush when a 3/8" joint is used.

The inserts should be pressed down into position after the units are laid. This will put the insert in the proper position to interlock with surrounding inserts in the wall.



First Course

Some masons prefer to remove the inner part of the insert prior to laying the first course of units, and then to replace that part in the units after the course is laid and then press them down into place following placement. This may ease handling of the units during placement of the first course but is not necessary in subsequent courses.



Mortar Joints

Some versions of the Hi-R units have offset ends and may require some extra care in mortar placement. No special techniques are needed for mortar joints. The Hi-R H units are laid in the same manner as conventional masonry.

Corners, Ends and Joints

Closed end masonry fittings are used for any detail that requires a closed end. Insulation inserts are available for these fittings to improve thermal performance at these locations. Michigan style movement joints can be constructed using the Hi-R units.



Grout and Rebar Placement



Hi-R H units are suitable for use in bond beam courses without the need for any modifications to the unit. The reduced height of the cross web accommodates horizontal rebar readily. The system is designed for full grout without removal of the insulation inserts. Due to their reduced web height, Hi R H is not typically used in partially grouted walls.

Hi-R Units should be cut to allow use as knock-out bond beam units since their webs behind the inserts will need to be reduced in height to accommodate reinforcement rebar.



Questions?

For more information, visit
concreteproductsgroup.com
or email your questions to
info@concreteproductsgroup.com

Hi-R is a registered trademark of CONCRETE BLOCK INSULATING SYSTEMS, INC.