

# DEFEND-R CI INSTALLATION GUIDE

## FOR DEFEND-R CI FOIL, DEFEND-R CI FOIL (CLASS A), DEFEND-R CI COATED GLASS AND DEFEND-R CI COATED GLASS (CLASS A)

### COORDINATION

- Pre-construction meeting shall cover all decisions pertaining to design so that the Defend-R CI polyiso is properly installed.
- Review submittals, surface preparation, installation procedures, special details, sequence of construction, responsibilities, mock-up requirements, inspection, testing, and repair procedures.
- Mock-up shall establish procedures and workmanship that must be followed during installation.
- Review adjacent construction materials such as windows, doors, ducts, and other penetrations for conformance to manufacturer's application instructions.
- Sequence installation of flashing and sealant to prevent damage and water infiltration.
- Refer to project-specific documentation for components manufactured by others.

### SUBSTRATE/PROJECT/SITE CONDITIONS

- Do not apply Defend-R CI polyiso and associated materials to damp or frozen surfaces.
- Protrusions and mortar droppings shall be removed from surfaces and brick-ties to facilitate fit and finish of Defend-R CI polyiso.
- Protect polyiso during transportation, storage, and installation in accordance with Job-Site Storage guidelines and Post-Installation Exposure guidelines on product literature.

### GENERAL APPLICATION NOTES

- Defend-R CI polyiso shall be installed continuously and secured appropriately to deliver its maximum impact on building energy efficiency.
- Defend-R CI polyiso can be installed on the interior or exterior of exterior wall assemblies.
- Interior applications of Defend-R CI Foil, Defend-R CI Foil (Class A), Defend-R CI Coated Glass and Defend-R CI Coated Glass (Class A) should be separated from the building Interior by a minimum of ½" gypsum or equivalent thermal barrier.
- Begin at base of wall from firm support (permanent or temporary).
- Apply Defend-R CI polyiso horizontally or vertically in a running bond pattern using maximum board lengths to minimize number of joints. Offset Defend-R CI polyiso vertical joints a minimum of 6".

- Pre-cut Defend-R CI polyiso to fit openings and projections. Defend-R CI polyiso boards can be cut with a table saw or knife using a square to guide the cut.
- Abut all polyiso board joints tightly and ensure overall flush, level surface.
- For adhesive attachment of Defend-R CI polyiso apply dabs of adhesive approximately 16" o.c. to maintain drainage plane. Please note that Defend-R CI wood composites must be mechanically attached.
- For mechanical attachment of Defend-R CI polyiso please see our fastening information in the following section.
- Fill gaps between insulation boards greater than ¼" with expanding spray foam or butter edge of board with approved sealant and strike flush. Expanding spray foam may also be applied to the insulation board edges during installation.
- Honor expansion joints as indicated in construction drawings. Do not span expansion joints.
- Install all materials in accordance with current published literature and local code requirements.
- Other acceptable methods of application not covered here may be incorporated during construction provided all applications follow proven and sound construction techniques.

### FASTENING CONTINUOUS WALL INSULATION

- Each fastener going through the insulation is a potential thermal break. Reducing penetrations in the insulation and WRB improves the overall hygrothermal performance of the wall.
- The exterior cladding or interior finish system is critical in determining the fastening of non-nailbase Defend-R CI polyiso insulation boards. When the cladding system or interior finish is fastened through the polyiso to the base wall, that fastening is often all that is needed to permanently secure the polyiso. In these scenarios, Defend-R CI polyiso can be temporarily held in place with a minimal amount of mechanical fasteners or dabs of adhesive.
- If the exterior cladding or interior finish system will not be securing the Defend-R CI polyiso firmly in place, an accepted industry standard for mechanical fastening of polyiso continuous insulation is 12" o.c. at the perimeter and 16" o.c. in the field.

## APPROVED ACCESSORIES

### Fasteners

- Grip-Deck ci screws with Thermal-Grip or Plasti-Grip washers
- Plasti-Grip PMF Anchor
- Hilti Insulation Fastening System
- Ramset I-F Fastening System
- Stick pins
- Others as approved by Drexel Metals

### Tapes

- Foil Grip 1402 Tape
- Aluma-Grip 701 Tape
- ECHOTape MT-A7757 All Weather Aluminum Foil Tape
- Siga Wigluv
- Others as approved by Drexel Metals

### Sealants

- BarriBond XL
- BarriBond
- BarriBond HP
- Dynatrol I-XL Hybrid
- HandiFoam
- Tiger Foam Fire Block
- Great Stuff
- Manus-Bond 73-A and 73-GP
- Others as approved by Drexel Metals

### Adhesives

- Loctite PL-300 Foam Board Adhesive
- Chemlink WallSecure
- DAP Dynagrip Foamboard Construction Adhesive
- BASF MasterWeld 420
- Others as approved by Drexel Metals

## DEFEND-R CI POLYISO AS CONTROL LAYER

Defend-R CI boards can be used as a barrier in the wall assembly by treating the seams and penetrations with one of our approved options. Approved options include:

- BarriBond XL Liquid Flashing & Detail Sealant: 2.0" min width
- BarriBond Liquid Flashing & Detail Sealant: 2.0" min width
- DynaTrol I-XL Hybrid Sealant: 2.0" min width
- Foil-Grip 1402 Tape: 4.0" min width
- Aluma-Grip 701 Tape: 4.0" min width
- ECHOTape MT-A7757 All Weather Aluminum Foil Tape: 4.0" min width
- Siga Wigluv: 4.0" min width

## REPAIRS

- Repair damaged insulation by cutting out and replacing damaged area with new Defend-R CI polyiso. Smaller damaged areas can be filled with foam or caulking sealant. For mechanically fastened repairs the Defend-R CI polyiso should be brought to the nearest framing member so that proper fastening can be maintained.
- If the Defend-R CI insulation is being used as a barrier the repair will need to be taped in accordance with our guidelines for seam and penetration treatment.