Polar Fold®
Siding Underlayment

ACH FOAM TECHNOLOGIES
LEADING THE INDUSTRY IN EPS MANUFACTURING

Insulation
Moisture Resistant

Moisture resistance is a very important consideration for any building. Low water absorption and permeability help create a more comfortable living environment. Polar Fold® enhances the performance of the structure because it utilizes a high efficiency core of EPS insulation wrapped with water resistant facings.

Level Surface

Cut & fold hinge joint creates flat placement of the underlayment. This creative design provides a continuous level surface with no breaks or joints that are common in other insulative underlayments. Waviness and buckling are reduced for a beautiful siding job. Available in a 4' X 50' unit (2 squares).

Durable

Polar Fold® is strong and tough enough to meet the demands of the construction industry. High efficiency EPS is wrapped in strong film facers. This ensures that you will be working with a durable, lightweight, rigid insulation board. Consequently, it is much easier to handle and greatly reduces warehouse and job site damage.

Environmentally Friendly

Polar Fold® uses high performance EPS insulation, one of the most energy efficient insulations used in the construction industry today. EPS has a 35 year history of proven performance and will provide a lifetime of energy savings. The EPS core has never contained CFCs, HCFCs, or any ozone depleting materials and is available with a 50-year R-value warranty.

Installation Instructions

1. The substrate should be flat, dry and free of any foreign materials that would damage the Polar Fold® insulation board. The beginning of installation indicates that the contractor has accepted the condition of the existing substrate.

2. Install Polar Fold® directly over existing substrate using galvanized or aluminum roofing nails, remove any damaged siding and install directly over framing members if necessary.

3. Avoid over-driving of fasteners because this will compress the insulation and create a wavy appearance of the new siding exterior. The installer should be careful when installing under new siding materials. The board must lay flat and be adequately fastened.

4. Install the new siding directly over the Polar Fold® per the siding manufacturers recommendations.

5. A higher R-Value can be achieved by using 1/2" furring strips between the existing substrate and the Polar Fold® reflective surface. (Consult the R-Value chart for more information)

R-Value Chart*

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit of Measure</th>
<th>3/8&quot; +FF 375</th>
<th>3/8&quot; ++RF 375</th>
<th>1/2&quot; +FF 500</th>
<th>1/2&quot; ++RF 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Resistance</td>
<td>Per Thickness</td>
<td>1.50</td>
<td>4.3**</td>
<td>2.00</td>
<td>4.8**</td>
</tr>
</tbody>
</table>

Caution: EPS contains a flame retardant; however, it should be considered combustible and not exposed to sources of ignition. EPS core is manufactured to meet the requirements of ASTM C-578 and is listed under ICC 1006. Polar is listed under ICC E84-1504. Consult ACH Foam Technologies for current code compliance. Other sizes and densities available to suit project requirements.

*See manufacturers recommendations or Tech Data Brochure for more information.
** System R-Values are calculated from the ASHRAE Handbook of Fundamentals with the reflective facing adjoining a 3/4" parallel dead air space. The R-Values of these products installed without an airspace are 1.5 (3/8") & 2.0 (1/2").

*FF (Film Facing)  **RF (Reflective Film Facing)

All beautiful siding projects begin with a solid foundation. You need a material that provides a flat and level surface for new siding. Polar Fold® was developed to meet all of those requirements. Polar Fold® combines high performance EPS with strong film facings making it a durable underlayment for the application of new sidings. EPS is long known in the construction industry for its superior energy efficiency. The Polar Fold® design wraps your home in a continuous insulation envelope that reduces air infiltration and gives you a lifetime of energy savings.

The Polar product line is also available as Polar-R®, which is manufactured with the same quality materials in 4' x 8' sheets and comes in a range of thicknesses: 1/2", 3/4", 1", 1 1/2", 2", 3", and 4"