



3A Composites USA, Inc.  
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[3ACompositesUSA.com](http://3ACompositesUSA.com)  
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## **Product Description & Application Instructions - Backer Board - For Factory Built Construction Siding Applications**

August 1, 2016

**Description & Properties:** A nominal 1/4" polystyrene foam board with natural kraft facers. Product meets the requirements of the HUD code for application as a backer board for vinyl, metal, cement or wood siding.

Gauge: 230 mils to 270 mils  
Core: Polystyrene foam  
Permeance: Greater than 5 for better moisture control  
Thermal Performance: R-value of 1  
Water-resistance: 24+ hours (ASTM D-779)  
Flame Spread = less than 75  
Smoke Development = less than 450  
Compliant with HUD code (Sections 3280.207/305/504)  
Product Code - 420TS  
Product contains no chlorofluorocarbons

No formaldehyde is added to the product during the manufacturing process. Product has been tested to ASTM E1333-96 (2002) and was found to be BDL for formaldehyde. It should be noted the detectable limit of the test method as performed is 0.03 ppm. BDL stands for "Below Detectable Limits" and indicates the test result was below that lower threshold.

Note: Carbon black may be added to the polystyrene as a colorant. If colorant has been added the foam will appear to be black or gray instead of white. There is no loss in performance or properties due to this colorant.

### **Material Safety Data Sheet Information:**

Backer Board is an "article" and no MSDS is required for compliance with the OSHA Hazard Communication Standard (29 CFR 1019, 1200). The standard applies to "chemicals," but it does not apply to an "article". The term "article" is defined in the OSHA warning rule, as a manufactured item: 1) which is formed to a specific shape or design during manufacture, 2) which has end use function(s) dependent in whole or in part upon its shape or design during end use, and 3) which does not release or otherwise result in exposure to a hazardous chemical under normal conditions of use.

### **Sizes:**

Product is manufactured in stock sizes of 4' x 92", 4' x 98" and 4' x 102". Special cut sizes of up to 8' x 8' can be manufactured upon request. Special cut lead time can be up to 3 weeks.

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420TS – 4' x 7.7' (92") (159TS-924B) Untrimmed <sup>1</sup> Billed at 90"	420TS – 4' x 8.17' (98") (159TS-9848B) Untrimmed <sup>1</sup> Billed at 96"	420TS – 4' x 8.5' (102") (159TS-10248B) Untrimmed <sup>1</sup> Billed at 101"
Natural kraft liner both sides	Natural kraft liner both sides	Natural kraft liner both sides
176 sheets per skid	176 sheets per skid	176 sheets per skid
5,397sf per skid Billed at 5,280sf per skid	5,749sf per skid Billed at 5,632sf per skid	5,984sf per skid Billed at 5,925sf per skid
24 skids – Flatbed T/L 26 skids – Van T/L	22 skids – Flatbed T/L 24 skids – Van T/L	20 skids – Flatbed T/L 24 skids – Van T/L
126,720sf = Flatbed T/L 137,280sf = Van T/L	123,904sf = Flatbed T/L 135,168sf = Van T/L	118,500sf = Flatbed T/L 142,200sf = Van T/L

\* - trucks vary in size, and the company reserves the right to fill the truck.

<sup>1</sup>Untrimmed material will have some foam extending beyond the natural kraft liners.

**Product Packaging:**

A skid of Backer Board is covered with protective dunnage material, and then covered with a polyethylene bag. The skid is banded and ready to ship. Skid numbers and run numbers are noted on a sheet that is attached to the dunnage material. Should a complaint arise we need the skid number to help us identify when the material in question was manufactured.

	<p><b>420TLM32 90x5640</b>  <b>1 Sheet</b>  <b>RUN# 3088413</b>  <b>PALLET# 13142</b></p>
<p>Pallet with poly bag</p>	<p>Product info – Run 3088413 / Pallet 13142</p>

**Product Storage:**

Backer Board may be stored outside as long as has similar wrapping to the photo above. The product performance is not damaged by moisture or dirt. General appearance of the product may become weathered, but it does not affect the product's performance. Weathering of the dunnage sheet around the skid does not mean the sheets are weathered or damaged. Inventory on the material should always be rotated. Run numbers and/or pallet numbers identify age of manufacture. Lower numbers indicate older material.

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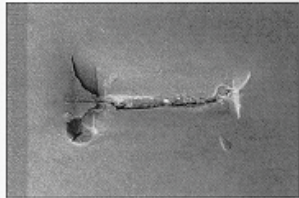
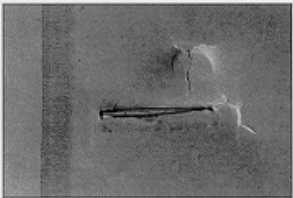
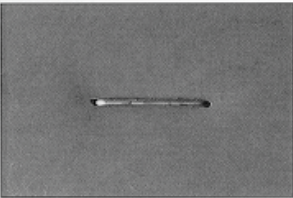
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**Fastening and Installation Instructions:**

Fastening has 6 areas: Interval and Size - Depth - Placement - Direction of Fastening – Type

<b>Fastening Interval and Size</b>			
	<b>Non-Corner</b>	<b>Corner*</b>	<b>Size (minimum crown x leg x gauge)</b>
Wind Zone 1	8"	8"	7/16" x 1" x 16 GA
Wind Zone II	4"	3"	1" x 1¼" x 16 GA
Wind Zone III	2"	4"	1" x 1¼" x 16 GA
* - Corner area Zone III utilizes double studs. Call to request copy of Wind Zone II & III testing.			

<b>Fastening Depth</b>
<p>The fastener crown for all Wind Zones can be installed at an angle from vertical to horizontal as long as both legs are in the framing member.</p> <p>Should a fastener be overdriven, another fastener may be installed beside it.</p> <p>To insure proper depth of drive adjust fastening tools regularly and consult with the tool manufacture on how to obtain consistent depth of drive.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><i>Unacceptable - no staple showing</i></p> </div> <div style="text-align: center;">  <p><i>Acceptable - staple is visible</i></p> </div> <div style="text-align: center;">  <p><i>Best</i></p> </div> </div>

<b>Fastener Placement</b>
<p>Walls - Fasteners are placed on the studs, and across the top and bottom plate at the interval shown above for the type of Wind Zone home being built. Example, Wind Zone I homes are fastened every 8" on the stud, and at the top and bottom plate. Wind Zone I fastening may be accomplished with either a vertical pattern of the fastening crown, or a horizontal pattern (called "stitch stapling") of the fastener crown that spans between 2 pieces of Backer Board. Wind Zone II and Wind Zone III fasteners may be either vertical or on an angle as long as both legs are in the stud. Gable Area – Fasteners are placed approximately at the intervals shown in the above chart (non-corner area) for Wind Zone II and III homes.</p>

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#### Direction of Fastening

Fastening should be placed so that it runs in one direction to prevent bowing the product. Fasten from left to right, right to left, up, or down. Never fasten from each end and back to the center, as this will build in a bow. The bow can negatively affect the appearance of the exterior siding.

#### Fastener Type

For Wind Zone II & III homes the fastener must be 1" crown with a 1¼" leg to comply with testing. For Zone I homes you may use the same 1" crown fastener with 1" leg or a 7/16" with a 1" leg. The 7/16" crown will have less holding capability than a 1" crown, but if the siding is installed the siding fastener retains both the siding and Backer Board. The 7/16" tool and fastener do in seem to eliminate overdriving, getting both legs of the fastener in the stud and slamming of the tool against the product.

Techniques, not requirements, that may be used:

- Should air and/or water leakage protection be desired, you can either overlap the product by 1" or tape the vertical joints and the horizontal joints. Installer may compress the overlap area, see instruction on previous page. (Use of continuously folded Fome-Cor Board does not require as much taping of horizontal joints for air and water leakage protection.) If Backer Board is used solely as a backer, taping or 1" overlapping is not required. Window cutouts may be used in gable areas.
- Should seams occur under window or door areas, manufacturers should review water-resistance performance of any backing material being used, or refer to DAPIA approval for water divergence techniques. Backer Board has a 24-hour water-resistive rating (ASTM D779).
- Fastening penetrations may create points at which water can enter. Manufacturers may want to utilize a broad-headed fastener (i.e., roofing nail) in water-sensitive wall or gable areas of the home.
- Should an installer need to locate wiring under Backer Board, simply make an "X" or "U" cut to locate the wire. This does not remove material and the "X" or "U" can be taped or covered with a piece of water diverting paper (diverting paper would have to be cut the height and width of the stud bay). For Wind Zone II & III applications the "X" or "U" cuts must be limited to no more than 6" x 6", and only one per stud bay.

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### Taping Information

First, tape or taping is not required. Tape or taping is a technique that may be used to protect seams or cuts that could occur during application of either product. This is a recommendation not a requirement.

Second, the type of tape would be based on desired performance measures. The two performances most desired are:

1. Reducing the movement of air leakage through the seam or cut.
2. Reducing the movement of water leakage through the seam or cut.

Based on these two performance measures we recommend the following:

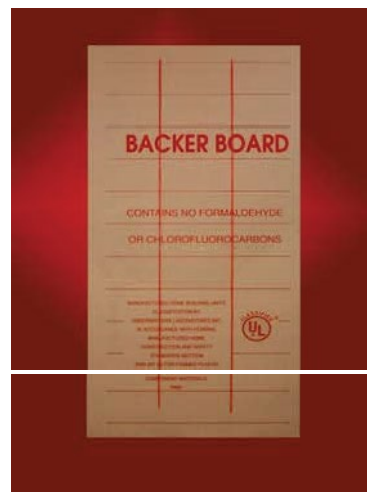
- A. Tape adheres to paper/wood.
- B. Tape maintains adhesion in a heat range between 25F and 180F.
- C. Tape maintains adhesion when in contact with liquid water. Consult the water penetration rating for the tape you are considering.

Two types of tapes that are commonly used in a manufacturing facility may work for this technique. Many facilities use a foil-faced tape for HVAC systems, and a tape is also utilized with the repair of Bottom Board. Compare their performance with items A thru C to determine if suitable for this technique.

### Alternate Uses:

Window and door cut-outs should not be thrown away. Backer Board is an excellent cushioning material that can be recycled by using the window and door cut out pieces to cover countertops and flooring to

### Product Appearance:



Vertical stud location lines are placed on the product at 16" and 32" from the leading edge of the board. Product installed in the wall area of the home shall always be installed with vertical stud location lines being up and down on the house.

Product installed in the gable areas of the home can be installed in the vertical or horizontal. Should framing members not be located at 16" oc intervals the installer can simply press with the palm of the hand on the board to locate the firm area where the framing member is located.

reduce damage during construction. Backer Board may be scored with a dull tool for folding into shipping containers for parts. Don't throw it away; recycle it!

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**Sustainability Information:**

Backer Board utilizes post industrial recycle foam and liner board that is utilized is purchased from vendors that comply with either Sustainable Forestry Initiative Standard (SFIS), or Forestry Stewardship Council (FSC). Ask for our Care and Conserve™ information.

**Overlapping and Compressing The Product**

Sheets are designed to be butt-jointed. Butt-jointed does not mean that sheets must be flush against each other. There can be a gap between the sheets. Should overlapping be desired (as opposed to taping) the installer may overlap a minimum of 1" and then use a tool i.e. hammer to slide down the product and compress the foam. Compressing the edge of the product will aid in not causing an undesirable surface defect in the siding. This technique is allowed but installer is responsible for insuring the compressing of the foam is enough to not create an undesirable surface defect.



Preparing to install Backer Board.



Moving Backer Board sheet into position. A gap may occur but is not required to positioning sheets across the next 4' section of wall.



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This Product Description information is obtainable from you Fome-Cor® Board sales representative or our customer service representative.

Customer Service at 877-424-9860;  
Starr - ext. 7035

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