

# SPECIFICATION FOR OUTSULATION® WITH MECHANICAL FASTENERS

**DS135**

## I. General

- A. The Dryvit Outsulation System shall be mechanically attached to any structurally sound painted or unpainted substrate including wood or metal framing with sheathing, masonry or poured concrete.
- B. The mechanical fasteners consist of a corrosion resistant (Silver Senti or equal) screw or masonry anchor used in conjunction with approved plastic washers.

## II. System Description

- A. A mechanically fastened Outsulation System consists of Insulation Board, mechanical fasteners with approved plastic washers, Dryvit Genesis®, Dryvit Primus®, Dryvit Reinforcing Mesh and Dryvit Finish.

## III. Products

- A. All products shall be obtained from Dryvit Systems, Inc. or its authorized distributors. No substitutions or additions of other materials shall be allowed without prior written permission from Dryvit Systems, Inc.
- B. Materials
  - 1. Insulation Board - Molded expanded polystyrene board meeting the specifications of Dryvit Systems, Inc. and produced by a manufacturer acceptable to Dryvit.
  - 2. Mechanical Fasteners - Minimum No. 8 Screw or No. 10 Masonry Anchor with Silver Senti coating or equivalent.
  - 3. Approved Plastic Washers - Minimum 38 mm (1 1/2") plastic washers specifically designed for use with Exterior Insulation and Finish Systems.
  - 4. Dryvit Genesis - Fiber reinforced, acrylic-based product mixed with Portland Cement. Provides a high-build base.
  - 5. Dryvit Primus - A factory mixed, acrylic based product.
  - 6. Dryvit Reinforcing Mesh – Glass fiber mesh(es) supplied by and meeting the specifications of Dryvit Systems, Inc. used to reinforce the base coat and to provide impact resistance.
  - 7. Dryvit Finish – A factory mixed, acrylic coating with integral color available in a variety of texture types, applied to the outside surface of the base coat.
  - 8. Sealant System – Refer to Dryvit Systems, Inc.'s current Technical Data Sheet Publication, DS153, for listing of sealants, which have been tested to be compatible with Dryvit's systems and products.

## IV. Mixing

- A. Preparation of all Dryvit materials shall be done in accordance with the Outsulation Application Instructions, DS204, or the applicable product literature.

## V. Examination

- A. Prior to installation of the Outsulation System, the substrate shall be inspected by the contractor to ensure there are no planar irregularities greater than a 6.4 mm (1/4") within a 1.2 m (4' 0") radius.
- B. Installation shall be inspected for compliance with approvals, contract documents, and Dryvit Systems, Inc.'s specifications. The General Contractor shall be advised of all discrepancies. Work shall not proceed until unsatisfactory conditions are corrected.

## VI. Installation

- A. The fastener pattern and insulation thickness determines the maximum allowable wind load. Refer to the attached sketches (Pattern A, B, and C) for fastener spacing requirements. The table below should be used as a guide for determining fastener patterns:

EPS Thickness (Inches)	Fastener Pattern	Pressure & Failure (PSF) <sup>1</sup>
25 mm (1")	A	70
25 mm (1")	C	56
38 mm (1 1/2")	A	113
38 mm (1 1/2")	B	73

<sup>1</sup>Note: For allowable design wind load, appropriate safety factors must be applied.

- B. Approved Plastic Washers:
  - 1. Wind Devil® as a manufactured by Wind-Lock Corporation.
  - 2. Tru-Tite® as a manufactured by Tru-Fast Corporation.
- C. Insulation Board shall be attached to the substrate horizontally with vertical joints staggered and butted tightly.
- D. Install mechanical fasteners with approved plastic washers flush with the surface of the Insulation Board and not to exceed 1.6 mm (1/16") below the surface.
- E. Rasp the surface of the Insulation Board to remove any irregularities.
- F. Base Coat Application
  - 1. Spot the fasteners with the Genesis mixture.
  - 2. Let prespotted areas take-up and either install a full Genesis or Primus base coat over the entire wall surface.
  - 3. Reinforcing mesh shall be fully covered and not visible.

## G. Finish Application

1. Allow the reinforced base coat to cure a minimum of 24 hours prior to installing the Dryvit finish.

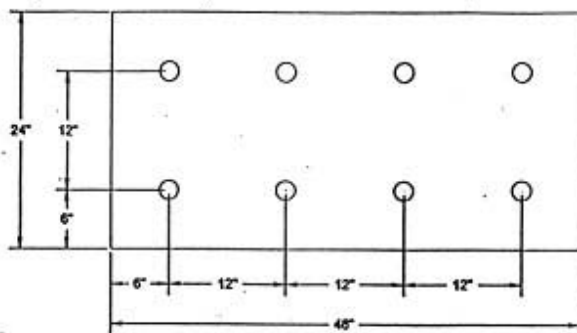
H. For complete information regarding the installation of Dryvit's reinforcing mesh(es) and finish, consult Dryvit's Outsulation Application Instructions, DS204.

## Fastener patterns and data provided by Wind-lock Corporation and ITW-Buildex.

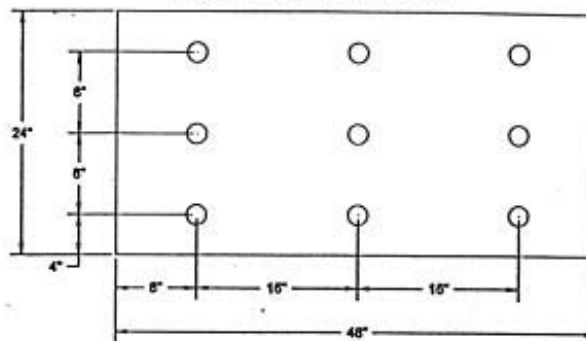
Fastener Type	EPS Foam Thickness	Fastener Pattern/Ultimate Average Wind Load* (psf)			
		A	B	C	D
Wind-lock Wind Devil 2	25 mm (1")	117	88	100	--
	38 mm (1 1/2")	130	114	140	--
	51 mm (2")	130	129	--	--
Wind-lock Wind Devil	25 mm (1")	63	60	--	63
	38 mm (1 1/2")	80	88	--	--
	51 mm (2")	88	114	--	97
ITW Grid Mate PB	25 mm (1")	--	--	--	--
	38 mm (1 1/2")	--	--	109	--
	51 mm (2")	--	--	105	--

\*Loads shown are ultimate loads, appropriate safety factors should be applied to these values for design purposes.

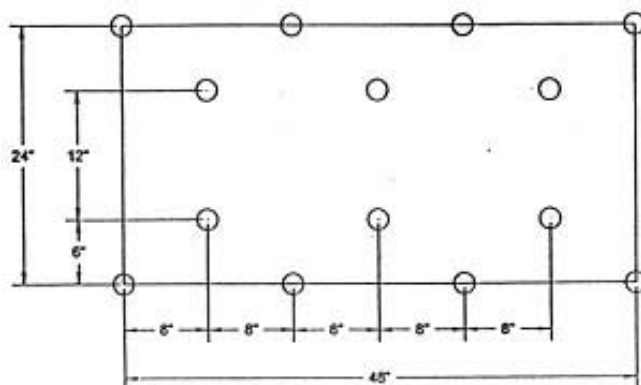
Pattern "A" - For use with structural substrates such as:  
wood sheathing, concrete, masonry, metal siding



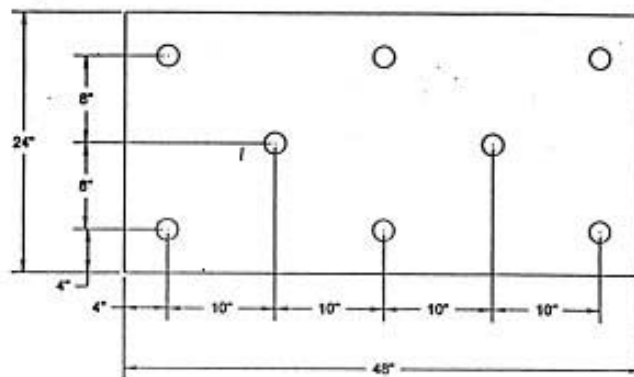
Pattern "B" - For use with non-structural sheathings such as:  
OSB, gypsum, Dens-Glass Gold



Pattern "C" - For use with structural substrates such as:  
wood sheathing, concrete, masonry, metal siding



Pattern "D" - For use with structural substrates such as:  
wood sheathing, concrete, masonry, metal siding



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