



cellofoam® Insect Resistant RIGID INSULATION



Need termite protection for your EPS foam?

Cellofoam expanded polystyrene (EPS) foam insulation is often used to insulate building components where conditions may be ideal for termite infestations, including:

- Foundations at and below grade
- Exterior walls
- Exterior Insulation Finishing Systems (EIFS)
- Insulated Concrete Forms (ICF)
- Structural Insulation Panels (SIP)

Although untreated EPS insulation contains no nutritional value for termites, the insects can use the material to build tunnels to access food sources, such as wood and other cellulosic components of a structure. As the termites burrow through the EPS, the foam becomes full of holes, which may reduce its structural integrity and insulating properties (R-value). Termite excretions can also affect the strength and hardness of the foam.

New solution to protect Cellofoam EPS

PREVENTOL® TM Preservative Insecticide* provides a more effective alternative than the traditional borate salts to protect EPS foam from termite damage (see photo A). Unlike inorganic borate salts, the active ingredient in **PREVENTOL® TM Preservative Insecticide**, imidacloprid, is an organic molecule that is pH neutral and non-abrasive. Imidacloprid is rated in the EPA's 2005 Carcinogen Risk Assessment Guidelines as group "E", which indicates no evidence of

carcinogenicity for humans. The product is safe to handle by insulation installers. Additionally, **PREVENTOL® TM Preservative Insecticide** has low water solubility which ensures the active ingredient will remain in the foam, thus providing long term efficacy against termites, even under harsh conditions and climates.



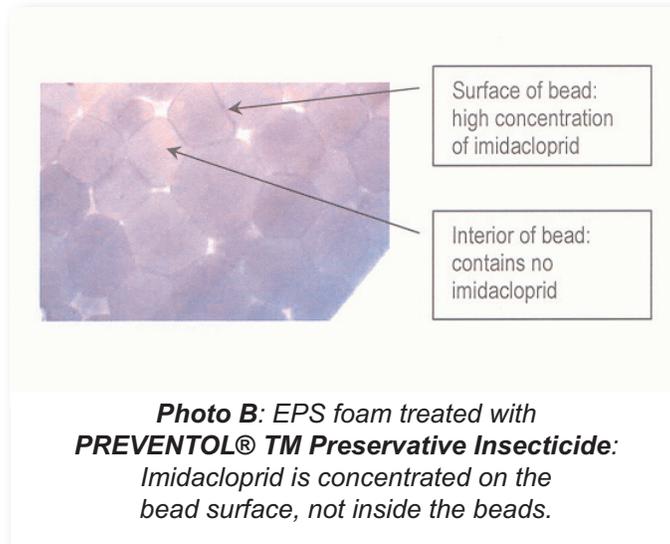
Photo A: Comparison of EPS in AWPA E1 two choice test (4 week exposure) (L-R): PREVENTOL® TM Preservative Insecticide, borate, and untreated.

Proven technology for a new application

PREVENTOL® TM Preservative Insecticide is US EPA registered to protect wood, textiles and plastics against insect attack. This product is successfully used to protect wood against damage by termites and other wood boring insects. Examples include pressure treated lumber for decking, doors and window frames. Imidacloprid is also used in the pest control industry, for crop protection, and as a topical treatment on pets for flea and tick control.

PREVENTOL® TM Preservative Insecticide

coats individual polystyrene beads and is retained in the organic polystyrene matrix. Although individual beads are coated, this does not interfere with the bonding between beads during the molding process. The beads of EPS represent areas containing no active ingredient, surrounded by a barrier of 100% **PREVENTOL® TM Preservative Insecticide** (see photo B).



When a termite burrows into **Cellofoam EPS** treated with **PREVENTOL® TM Preservative Insecticide**, it will encounter the insecticide barrier as soon as it chews through the outer wall of the bead. **PREVENTOL® TM Preservative Insecticide** acts on the termite's nervous system, disorienting and ultimately killing the insect before it can burrow further into the foam. This product is a systemic insecticide which kills termites instead of merely repelling them; termites die before they are able to move to a new, unprotected location.

***PREVENTOL®** is a registered trademark of LANXESS Deutschland GmbH

Why try new technology?

Since the 1950's, EPS has been recognized as a mainstream insulation material that lends to the design and structural integrity of many building projects. Unfortunately, according to the 2003 International Building Code, the susceptibility of EPS to termite damage has resulted in restrictions on use of EPS at and below grade in areas with "very heavy infestation"

(IRC Figure R301.2(6); ICC 2003)¹. In these areas, EPS foam insulation can only be used on building exteriors at or below grade if it has been treated with an approved method to protect from termite damage (IRC R320.4; ICC 2003)¹.

Traditionally, borate salts have been used

to protect EPS from termites, but testing by Su, *et al.* (2003)² shows borate offers insufficient protection against these insects. **Cellofoam EPS** treated with **PREVENTOL® TM Preservative Insecticide** meets all industry tests and protects your investment long term.

¹ International Code Council, Inc. 2003. *International Residential Code for One and Two-Family Dwellings*. International Code Council, Inc. Country Club Hills, IL.

² Su, Nan-Yao, Paul Ban and Rudolf Scheffrahn. 2003. Resistance of Insecticide-Treated Foam Board Insulation Against the Eastern Subterranean Termite and the Formosan Subterranean Termite (Isoptera: Rinoitermitidae). *Journal of Economic Entomology* 96(5).

WARNING: This product is combustible and if exposed to a fire of sufficient heat and intensity may burn rapidly. It should not be left exposed or inadequately protected. Consult specific instructions for use accompanying this product.

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