



80 Ellis Drive, Unit 1, Barrie, ON L4M 6E7
Tel: (705) 726-9499
Fax (705) 726-2110
Toll Free: (866) 468-6299
Email: info@nudura.com www.nudura.com

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VIA: Email /Fax

To: ALL NUDURA CLIENTELLE WITH CONCERNS REGARDING TERMITE INTRUSION

RE: TERMITE PROTECTION OF NUDURA™ INTEGRATED BUILDING TECHNOLOGY INSULATED CONCRETE FORMS

Since 1997, when national pest control operators lobbied the US Southern Building Code Congress to impose code restrictions with respect to installation of foam plastic insulation below grade, there has been much discussion about the issue of termites and how they behave in conjunction with insulated concrete forming systems (ICFs) in general. The issue surrounds the fact that in areas of high termite pressure, although the structural wall formed by ICFs is monolithic and impenetrable from termite attack, the exterior foam panel remains a potential conduit for termite travel to elsewhere in the structure unless measures are taken to mitigate this risk.

Although foam is not a food source, pest control operators have documented evidence of termites chewing through exterior mounted foam plastic insulation where it has been applied below grade to traditionally formed concrete walls, creating tunnels in the foam in an attempt to seek out food sources elsewhere in the structure. This fact makes the termites hard to detect and impossible to treat with ground sprays or even newer bait and trap methods. Since termites are not comfortable in light or open air, they will tend to do 1 of 3 things:

- (a) Stay below ground
- (b) Find an enclosed conduit medium in the form of wood or other material.
- (c) Construct "mud" or "sand" shelter tubes that cling to the exterior surface of any medium they can't chew through to attempt to get to a food source elsewhere. (This is one of the key pieces of evidence that a pest control operator looks for to confirm a termite strike on a building.

One of the best ways to provide for Item (c) within a NUDURA™ constructed building is through the installation of a "termite inspection strip". (See attached grade detail) This is easily formed on site by planning the termination of the grade level to occur at about the halfway height mark of the top form of the foundation wall. The exterior of the panels at this level are then cut horizontally to form a 6 to 8" deep void that faces to the exterior between the webs. Plywood panels are then rip cut into 1 foot wide by 8 foot long strips and then screw mounted into the form webs evenly over the exterior of the void band.

When the concrete is poured into the walls and consolidated, the concrete will fill the void out to the face of the plywood - flush with the face of the exterior foam panel. Once the plywood is removed after concrete curing, the structure will feature a continuous horizontal concrete band at grade level which will force any termite that might succeed in penetrating the exterior foam below grade to be ejected to grade or force it to construct "shelter tubes" up the face of the inspection strip where they can be visually detected. Naturally, any termite ejected to grade the inspection strip will then be prone to annihilation under a normal ground spray termite protection program or bait and trap system.

In addition to the above noted measure, if your region is noted to be in a high pressure termite area as identified by your local building official (as noted under the 1999 Standard Building Code or the 2000 or 2003 International Residential Codes) you may additionally require protection of the foam plastic insulation below grade through use of a formally approved Termite Barrier system which has been SBCCI or NES approved under a formal Evaluation Report.

A limited number of products exist on the market for this purpose. One such product is manufactured by the following company:

Polyguard Products, Inc.
Ennis, Texas 75120-0755

Phone: 972-875-8421
Fax: 972-875-9425

They manufacture a product system known as "Polyguard XT 650 Series Waterproof Membranes with Termite Barrier". It consists of a combination of 2 different materials:

- (a) A flexible peel and stick detailing strip/waterproofing membrane that is actually impregnated with a fine metal mesh. Although it is thin enough to remain flexible for bending into corner conditions, the mesh makes it impossible for termites to chew through. It is pre-applied at all footing junctions and corner details through the sub-grade portions of the building.
- (b) A triple thickness 36" wide rolled sheet peel and stick waterproofing membrane and termite barrier. This material is inflexible due to its thickness and is proven so strong it repels direct or indirect termite penetration. This material must be mounted with a termination bar at grade due to its weight.

The information related to this product is also attached to this transmission.
Should you have any questions please feel free to contact our technical staff at:

Email: techsupport@nudura.com
Barrie Office: 866-468-6299
Barrie Fax: 705-726-2110

Best Regards,



Keven Rector, B. Tech.
Technical Services Manager
NUDURA Corporation