
**Building &  
Construction**

WHEN YOU ADD IT ALL UP ...

# STYROFOAM™ Residential Sheathing Boosts The Bottom Line.



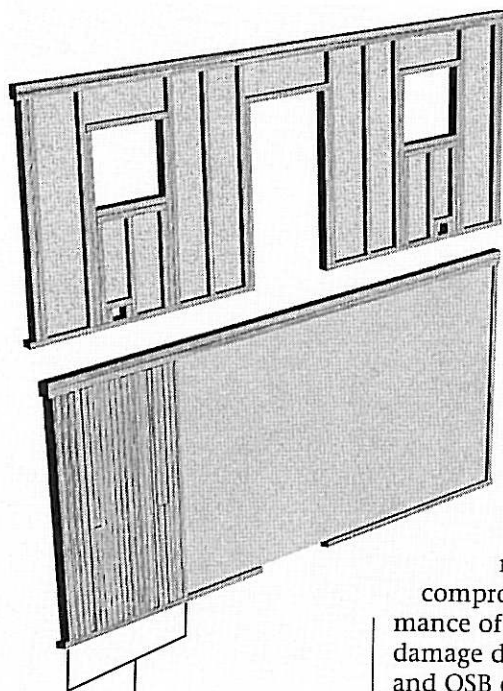
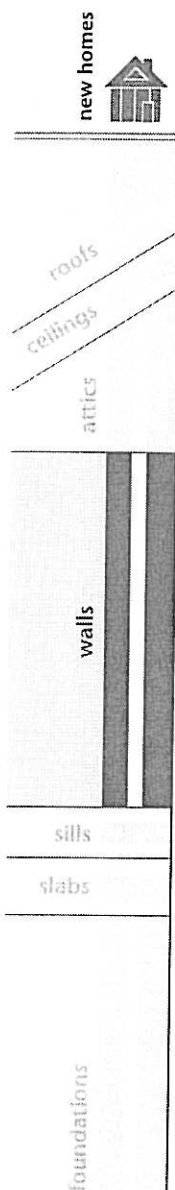
Homeowners consistently rank energy efficiency as a high priority when purchasing a new home. That's understandable, since the heating and cooling bill is the second highest monthly payment after the mortgage for many families.

Most say they are willing to spend more for a home that will deliver energy savings year after year.

Cavity insulation is a good start, but it's not enough. Wood framing, ducts, wiring and plumbing – all poor insulators – make up more than 25 percent of a wall's surface. In a typical home, that's the equivalent of leaving an entire wall uninsulated. With an R-value\*\* of approximately 3.0 at nominal 1/2", STYROFOAM™ Residential Sheathing extruded polystyrene insulation on exterior walls boosts the performance of the entire wall system.

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\*\*R means resistance to heat flow. The higher the R-value, the greater the insulating power.



*Studs account for 25 percent of the wall surface, leaving a quarter of the building with no thermal protection if an uninsulated sheathing is used.*

STYROFOAM™ Residential Sheathing adds up to an investment that will pay for itself in just a few years, and continue to provide value for years to come. And for builders, that means fewer callbacks and an enhanced reputation.

## Protection Against Moisture And Air

Extruded polystyrene insulation like STYROFOAM Residential Sheathing is inherently resistant to moisture, which can wreak havoc on other building materials. Moisture can

compromise the performance of cavity insulation and damage drywall, wood framing and OSB or plywood sheathing. STYROFOAM Residential Sheathing provides a one-two punch against moisture:

- Defends against wind-driven moisture penetrating a wall system, providing an effective layer of protection for wood components and cavity insulation.
- Moderates temperature in the wall cavity, reducing the potential for damaging moisture condensation to accumulate inside the wall cavity.

Air infiltration is the largest single cause of energy loss in most homes. Adding STYROFOAM Residential Sheathing to an exterior wall helps cover seams in the sheathing and gaps around windows and doors, providing a more complete barrier against air leakage.

## Tough For The Job

STYROFOAM Residential Sheathing is lightweight, making it easy to handle, but its thin plastic film coating enables it to withstand abuse during handling and around the job site. Yet it remains a simple matter to cut to size with a score and a snap. It can be placed directly over uninsulated studs using let-in bracing or metal strappings to provide the code-required lateral structural bracing, or as an insulating and weather barrier layer over wood panel sheathings such as OSB or plywood.

Adding STYROFOAM Residential Sheathing also provides a level, even surface for the exterior sheathing. With STYROFOAM Residential Sheathing on your next build, you'll offer homebuyers a winning combination of durability and long-term savings.

**Keep high energy costs down with STYROFOAM™ Residential Sheathing.  
Call your Dow representative for more information.**

NOTICE: Changes to the International Residential Code (IRC) require the installation of a weather-resistive barrier within most exterior wall assemblies in residential construction. The following Dow insulated sheathing products qualify as a weather-resistive barrier (WRB) when installed according to the installation instructions developed for "Installation of foam sheathing as a weather-resistive barrier": STYROFOAM™ DURALAM™ Plus, STYROFOAM Residential Sheathing, STYROFOAM Tongue & Groove, STYROFOAM Square Edge, STYROFOAM Residing Board, THERMAX™, TUFF-R™, and Super TUFF-R and therefore do not require the use of a building paper or a housewrap as a WRB. When a WRB is not needed, these Dow foam sheathings may be installed according to standard installation instructions for foam sheathing from Dow. Be sure products and installation procedures meet code requirements for your particular location.

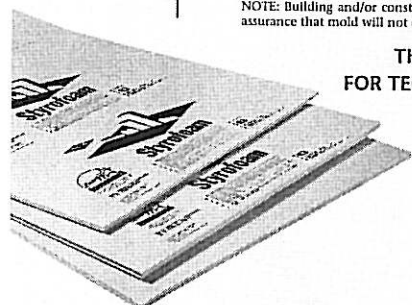
NOTE: STYROFOAM WEATHERMATE™ and STYROFOAM WEATHERMATE Plus housewraps have already qualified as weather resistive alternatives to the prescribed felt (see Evaluation Reports NER 593 and NER 640 for approved alternate).

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COMBUSTIBLE: Protect from high heat sources. Local building codes may require a protective or thermal barrier. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400.

NOTE: Building and/or construction practices unrelated to insulation or housewrap could greatly affect moisture and the potential for mold formation. No material supplier, including Dow, can give assurance that mold will not develop in any specific system.

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## What are the densities of STYROFOAM™ Brand Extruded Polystyrene Foam Insulation products?

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What are the densities of STYROFOAM™ Brand Extruded Polystyrene Foam Insulation products?

STYROFOAM™ Brand Extruded Foam Polystyrene Insulation products are manufactured to conform to ASTM C578 standards, which require specific minimum densities. Some examples include:

Type X with minimum density of 1.30 pcf

STYROFOAM™ Brand CAVITYMATE™ Insulation

STYROFOAM™ Brand Residential Sheathing (RS)

STYROFOAM™ Brand Z-MATE™ Insulation

Type IV with minimum density of 1.60 pcf

STYROFOAM™ Brand CAVITYMATE™ Plus Insulation

STYROFOAM™ Brand CAVITYMATE™ Ultra Insulation

STYROFOAM™ Brand DECKMATE™ Plus Insulation

STYROFOAM™ Brand SCOREBOARD™ Insulation

STYROFOAM™ Brand Square Edge Insulation

STYROFOAM™ Brand Tongue and Groove Insulation

Type VI with minimum density of 1.80 pcf

STYROFOAM™ Brand HIGHLOAD 40 Insulation

STYROFOAM™ Brand ROOFMATE™ Insulation

Type VII with minimum density of 2.20 pcf

STYROFOAM™ Brand HIGHLOAD 60 Insulation

STYROFOAM™ Brand PLAZAMATE™ Insulation

Type V with minimum density of 3.00 pcf

STYROFOAM™ Brand HIGHLOAD 100 Insulation

Density is sometimes used to select a rigid foam insulation material for a particular application. It should be noted that there are other performance properties listed in ASTM C578 that are often more important to consider when choosing the proper product for an intended application.

In Canada, extruded polystyrene insulation products are covered by the standard ULC S701, which does NOT specify a density requirement.