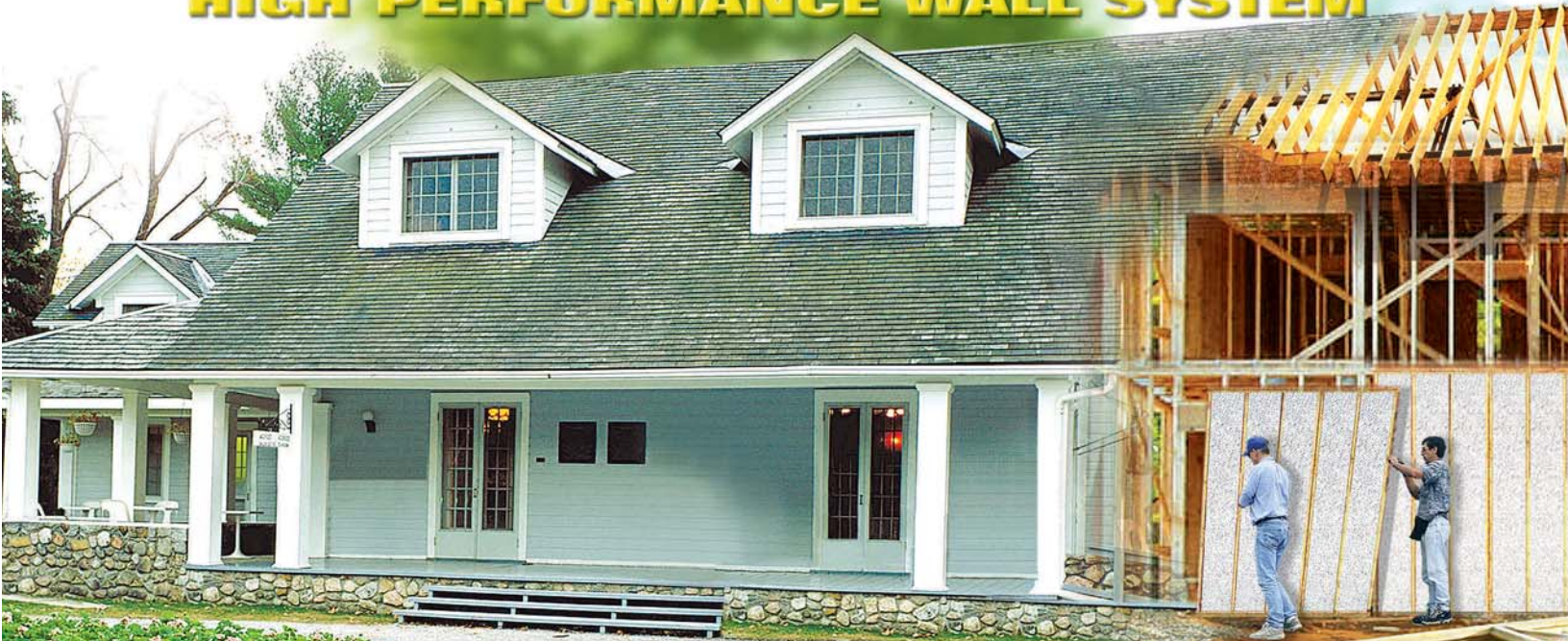


# Beaver Plastics™ Insul-Wall™ HIGH PERFORMANCE WALL SYSTEM



## Integrating Expanded Polystyrene and Traditional Building Technology

INSUL-WALL is made of specially cut expanded polystyrene (EPS) modules that are used to produce super-insulating, structural walls. These 'builder-friendly' modules are assembled using normal framing methods into a building envelope that is energy efficient, safe for your family and environmentally responsible.

### CONVENTIONAL FRAMING



Heat Transmitted through Framing Members

## Increased Thermal Efficiency equals Reduced Energy Costs and Resource Conservation

The essential feature of the INSUL-WALL system is the way the expanded polystyrene modules completely wrap the home, blocking heat that ordinarily escapes through the framing system. Providing a thermal break at every framing member increases wall thermal efficiency. Also, unlike fibre batt insulation, INSUL-WALL is closed cell, so air does not circulate inside the wall through convection currents or wind-driven wall washing.

### INSUL-WALL FRAMING

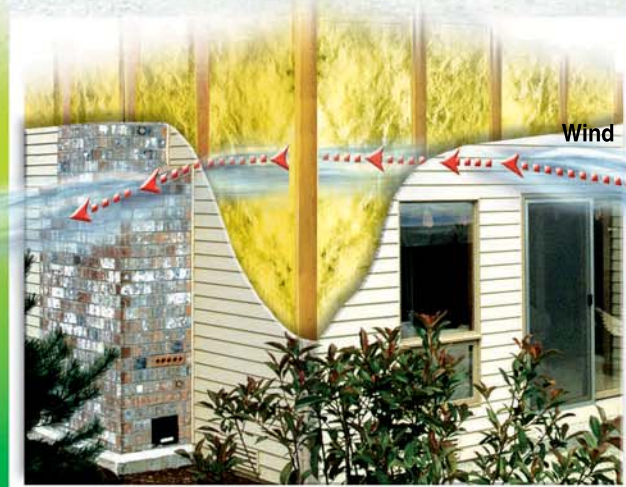


Thermal Break Restricts Heat Loss

## Convection Currents and Wall Washing

Convection currents occur inside walls because fibre insulations allow movement of air, like ordinary furnace filters. Air in the cavity next to the interior side of the cavity moves upward as it absorbs heat from the warmer surface. As well, air on the cold side moves downward, giving off heat to the exterior surface. This circulation continues as long as one wall surface is warmer than the other.

Wall washing happens when the wind blows against a building and enters the wall through a penetration. As the air travels inside the cavity through fibre insulation it "washes" heat from interior surfaces, and carries this heat to another side of the building, and out! Air does not move through INSUL-WALL, in even the windiest conditions.



# Insul-Wall™

## HIGH PERFORMANCE WALL SYSTEM

*A Better Choice for the Home Buyer and the World around Us*

### Improving Indoor Air Quality Benefits Everyone

Indoor air quality is important for families wanting a clean, non-polluted personal environment. Typical batt insulations are made of glass fibres and use off-gassing chemical adhesives to bond the fibers together. Totally inert INSUL-WALL is a healthy alternative, since it contains no formaldehydes, volatile organic compounds, fibers or any other noxious chemicals. Since it is hypoallergenic and does not support mould or any other organisms, INSUL-WALL is the better choice for a healthier environment.



**The Insul-Wall Promise: Reduced Heating Costs & Cleaner Indoor Air**

### EFFECTIVE R-VALUE COMPARISONS

**INSUL-WALL  
MAXI**

**R-26.04**

**INSUL-WALL  
STANDARD**

**R-19.69**

**CONVENTIONAL  
STICK FRAME**

**R-17.68**

Note: R-Value calculations for INSUL-WALL MAXI and conventional stick frame are based on using 2x6 studs at 24" centres. The results for INSUL-WALL Standard are based on 2x4 studs at 16" centres.

### INSUL-WALL - Two High Performance Products To Choose From

INSUL-WALL is available in two versions. INSUL-WALL STANDARD provides more than 10% better R-Values as compared to traditional wall construction. INSUL-WALL-MAX! has an even higher thermal value for home buyers wanting an upgraded home efficiency rating, such as through the R-2000 program.

INSUL-WALL in either version provides impressive R-Values and clean air benefits, being a "fibre and toxic chemical free" insulation.



### Environmental Responsibility while Meeting our Own Needs - A Win-Win

Using INSUL-WALL, saving energy dollars and maintaining cleaner air is achievable in any style of home construction. Using less energy means reducing demands on our natural resources while producing less carbon products that pollute our atmosphere. Utilizing fewer volatile chemicals in building materials is a positive result of using INSUL-WALL, making it a better choice for your new home.

**Insul-Wall**  
HIGH PERFORMANCE WALL SYSTEM

**Beaver Plastics**

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