



PROFOAM CORPORATION
"Stick With the Best...Don't Settle Like the Rest"

Building Efficiency

Builders and building scientists know that the greatest enemy of building efficiency is air infiltration and movement of air into insulation. The enemy of building longevity is hidden moisture condensation causing mildew and decay, not to mention the threat to health and comfort caused by these agents. PROFOAM™ foam insulation is the solution to these concerns of insulation contractors, builders, designers and building owners.

Imagine buildings where the walls work — no matter what. Stud frame buildings with cavities of PROFOAM™ foam insulation do work. Hot climate, cold climate, wet or dry, windy or calm, heating or air-conditioning.

While conventional fiber insulation in the right conditions may achieve thermal insulation with some success, it by its nature of using the air to insulate cannot isolate the air of the two climates. Air is mixed into the fiber with each change in outdoor temperature or wind condition — compromising thermal quality. Air contains moisture which when cooled, seeks to drop out on a surface as condensation. This occurs at building sheathing in the heating season and at the back of sheetrock in the air-conditioning season. Efforts to solve these problems have included caulking, house wraps and sealing tape, vapor retarders, venting and foam sheathing, together endeavoring to achieve what we really need — isolation.

PROFOAM™ successfully achieves thermal isolation, air isolation and moisture isolation. Both the indoor and outdoor climate are effectively displaced out of the cavity permanently as the PROFOAM™ is installed in its seamless fully adhered form.

It is the complete isolation of the interior climate from the exterior climate that describes how the PROFOAM™ system successfully deals with the complexities of building insulation operating in all climates. PROFOAM™ works by not allowing the interior climate (heating or cooling) to mix with the exterior climate (whether hot or cold). As seasons change and heating turns to air-conditioning, PROFOAM™ is unaffected by the reversal of moisture drives. It works both ways!

Go ahead — Picture this tough, high R-value, solid cellular plastic material spray installed between studs adhered to all it touches, being what insulation was meant to be.

Questions Asked About Profoam™?

How does PROFOAM™ work?

The purpose of buildings for people is to isolate them comfortably from a hostile exterior climate. The purpose of insulation is to develop this climate isolation beyond minimum shelter to allow complete modern interior climate control. To achieve this climate isolation successfully requires full isolation between interior and exterior air, moisture and temperature. The two climates must not mix in the insulated building cavity. The system must also be reversible so the building may be both heated and cooled efficiently. PROFOAM™ achieves the climate isolation necessary by its nature as a solid closed cellular plastic — fully adhered in the thin space of the building cavity. Exterior and interior climates cannot mix so no compromise of climate isolation can occur due to the exterior climate conditions, however severe.

Does PROFOAM™ need venting like conventional fibrous insulation?

No. PROFOAM™ does not need venting. Venting was designed to carry moisture out of fibrous insulation so it can maintain its thermal efficiency and minimize the damaging effects of condensed water in hidden building cavities. With PROFOAM™ no air can enter into or through the product as it is a solid cellular plastic. Since no air or moisture can get in or around PROFOAM™ it need not be vented off.

How does PROFOAM™ control moisture movement and condensation?

Most damaging moisture within a building envelope cavity is the result of warm moist air being exchanged with the cold dry air inside an insulation filled cavity. As the moisture in the warm air contacts a cold surface, it condenses, forming dew and/or frost within the insulation. Because PROFOAM™ does not allow the movement or exchange of air within the cavity, this moisture movement and condensation does not occur. PROFOAM™ is ideal for use in climates where buildings are both heated and air-conditioned (mixed climates) because the situation is reversed from winter to summer with the potential for moisture to form on the back of the interior vapor retarder if fiber insulation is used.

Does PROFOAM™ contain any harmful substances?

No. PROFOAM™ is made of resins similar to popular polyurethane varnishes for wood. PROFOAM™ does not contain formaldehyde.

At what point of construction is PROFOAM™ sprayed into place?

PROFOAM™ is applied before the sheet rock is put in place but after plumbers and electricians have completed rough-in work. The spray-in-place product creates a bedding around the pipes and closes all penetrations in and through the exterior walls of the structure which completes a nearly monolithic insulating blanket. PROFOAM™ can be installed quickly even in fairly extreme weather conditions. An average house of 1800 square feet may take a trained crew only 6 to 8 hours to complete.

Is PROFOAM™ environmentally friendly?

Yes! PROFOAM™ product uses a new generation of environmentally friendly ingredients. PROFOAM™ contains no CFCs. Also, its superior insulating capabilities dramatically reduce heating and cooling demands, reducing harmful emissions from power plants and home heating.

What happens if the owners want to add an electrical outlet once PROFOAM™ is installed?

If an outlet must be added, PROFOAM™ drills more easily than wood. There is also typically a small space left between the wall board and PROFOAM™ so a wire can slide through.

Can you drill holes in existing walls and fill them with PROFOAM™?

No. When PROFOAM™ expands it is very strong. As a result it may distort a closed wall cavity and then set up hard. PROFOAM™ is always sprayed into an open cavity. This also allows for better job quality control because the technician can see what is being insulated.

How long does PROFOAM™ last?

Indefinitely. As an inert, long-lasting polymer plastic, a house wall or commercial structure is the perfect place for PROFOAM™ to do its job for a very long time.