OWENS CORNING®

INNOVATIONS FOR LIVING®

# TOP TO BOTTOM WE'VE GOT YOU COVERED

Owens Corning is the leader in developing high performance building envelopes.

Durability, reusability, moisture resistance and the ability to retain R-value in the presence of water enable FOAMULAR® extruded polystyrene insulation to be used in a wide variety of building applications from roof insulation to below-grade use where the insulation will be in constant contact with moisture.

# COVERED

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### *Establishing the Right Foundation*

On foundations, moisture-resistant FOAMULAR® insulation insulates while at the same time its durability protects waterproofing membranes from backfilling damage, putting one more obstacle in water's path (soil to foundation).

### *Going Under Slab*

For use under slabs, in a variety of compressive strengths suitable for the lightest residential to the heaviest industrial floor loads, FOAMULAR® insulation is durable enough to be walked on while placing slab reinforcing and concrete.

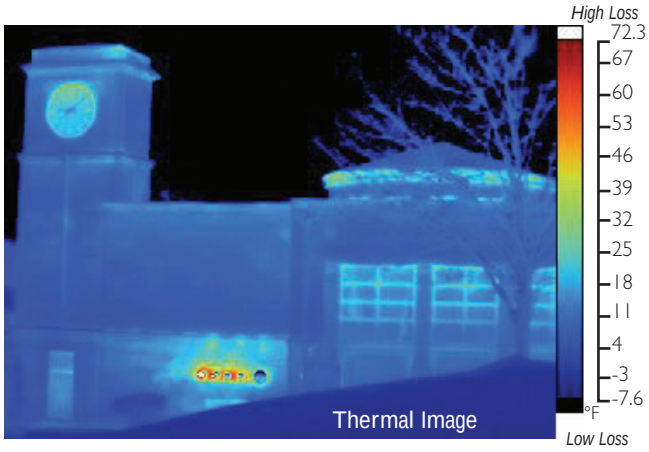
### *Insulating Below Grade*

In below-grade applications, FOAMULAR® insulation's high resistance to water absorption makes it the only choice to protect against constant and relentless moisture threats present throughout a building's lifecycle.

### *Sheathing and Masonry Wall*

FOAMULAR® sheathing and masonry wall insulation products are highly water resistant for cavity applications. They maintain their R-value over the life of the building and provide a "continuous insulation" layer prescribed by ASHRAE 90.1 [4].

## CONTINUOUS INSULATION




***Continuous insulation reduces energy loss due to thermal bridging.***

FOAMULAR® continuous insulation (ci), an important part of the prescriptive insulation packages specified in ASHRAE 90.1 [4], is intended to minimize the effects of thermal bridging through steel studs or solid masonry construction.

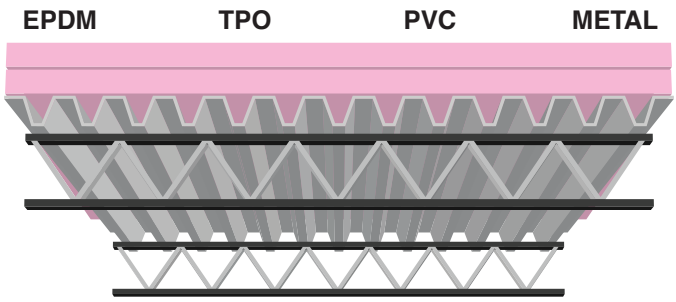
The absence of red thermal imaging — a sign of heat loss — at wall studs in this steel stud and masonry veneer wall system (pictured left), prove the clear advantage of continuous insulation. Continuous wall insulation has become a critical part of energy codes and associated compliant designs throughout North America due to ever rising energy costs.

## VERSATILE CONFIGURATIONS

FOAMULAR® XPS Insulation is available in a wide range of versatile configurations specifically designed for use in many types of above-grade wall construction. Our edge configurations include straight, tongue and groove and ship-lap.

- **Masonry Cavity Walls**: Available in precut 16" widths, our scored sheets can be easily snapped to 24" or 16" widths depending on jobsite requirements
- **Z-Furring**: Available in 23 7/8" width designed to fit tightly between Z-furring
- **Concrete Sandwich Panels**: Our 4' x 8' sheets enable maximum coverage in insulated concrete panels.

*THERMAPINK® roof insulation can be installed with a variety of roof coverings.*




## ROOFING

THERMAPINK® extruded polystyrene is the ideal roof insulation option when long-term, reliable properties such as R-value and dimensional stability are desired, along with durable resistance to normal foot traffic, high moisture resistance and reusability.

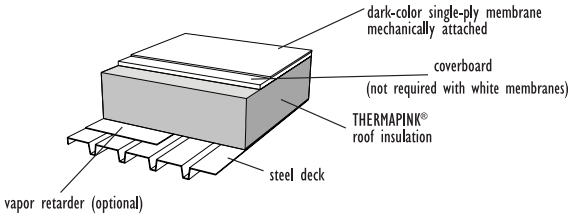
Used over all types of roof decks, including steel, concrete and wood, THERMAPINK® insulation can be installed directly over steel decks without the need for an additional thermal barrier layer.[5]

See the "FOAMULAR® Roofing and Waterproofing Manual"[6] for complete system details.

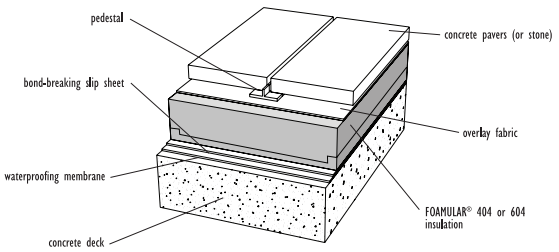
*The information in this document is from the USA. All measures are imperial not metric.*

# COVERED

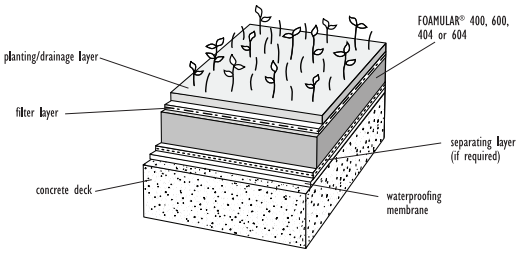
BELOW THE MEMBRANE




ABOVE THE MEMBRANE




VEGETATED SYSTEM




## RECOVER ROOFING

DURAPINK® insulation, installed directly over existing built-up roofing (BUR) and other types of existing membranes, provides a way to "recover" and reuse existing roofs. DURAPINK® insulation can be placed over old insulation, when its not too wet and is appropriate to do so. By leaving existing systems in place, tear-off of the old roof system is avoided, saving labor, hauling and landfill economic and environmental costs.

Placed over an existing membrane, DURAPINK® insulation provides a protective layer for the new membrane. It cushions over gravel and other small sharp edges. Other types of insulation, including the traditionally used wood fiber board, cannot perform these functions in a recover roofing environment because they are so susceptible to water absorption damage.

## RE-ROOFING

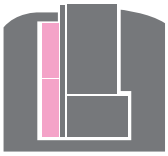
When today's roof reaches the end of its useful life, it must be replaced. Install FOAMULAR® insulation today and avoid replacement costs tomorrow.

Unlike other roofing insulation, FOAMULAR® insulation's high moisture resistance supports reuse, saving tear off labor, disposal fees and environmental costs.

## OTHER APPLICATIONS

Durability, reusability, superior water resistance properties and the ability to retain R-value in the presence of water enable FOAMULAR® extruded polystyrene insulation to be used as frost protection in many structural applications, such as shallow foundations, roadways and runways, as lightweight fill in geotechnical applications, and as concrete forming aids.

## PROTECTING SHALLOW FOUNDATIONS



When used as frost protection FOAMULAR® XPS insulates the ground, slowing the rate of heat loss and delaying the onset of freezing. Properly designed and installed, FOAMULAR® insulation can prevent sub-grade freezing altogether around protected foundations making it a suitable system for building shallow foundations (foundations above the frost line).[7]

## INSULATING PAVED SURFACES

Used below pavement surfaces, FOAMULAR® insulation increases the time needed for the sub-grade to freeze. It also delays thawing, thus reducing freeze-thaw cycles and reducing stress on paved surfaces. FOAMULAR® insulation properties comply with industry standards including AASHTO M230[8] for below pavement applications.

## PROTECTING SHALLOW UTILITIES & TUNNELS

When sub-grade conditions prevent deep burial of utility lines that are subject to freezing, FOAMULAR® XPS can be used to thermally protect utilities in shallow cover situations. FOAMULAR® insulation's durability and R-value retention in the presence of ground moisture make it ideal for below grade insulation projects.

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## PROTECTING WATERPROOFING

FOAMULAR® insulation is used to protect below grade waterproofing, even when insulating qualities are not needed. It is durable and light compared to asphalt board or other types of protective board often used. One person can place 4' x 8' sheets, saving time and labor.

## PRESERVING VOID SPACES

Some construction forming systems need void space inside the form. Durable and reusable FOAMULAR® insulation can be used to preserve such void spaces.

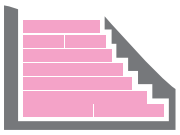
FOAMULAR® insulation can be used during the concrete forming process to preserve a void space under grade beam foundations installed over expansive soils.

FOAMULAR® insulation can also be used inside traditional concrete forms to create the voids needed to form brick ledges.

In grade beams, the foam can be left in place.

In brick ledge forming — after the concrete is placed and the forms removed — reusable FOAMULAR® insulation can be removed, leaving the formed ledge needed to support placement of brick veneer.

## GEOTECHNICAL APPLICATIONS



Durable, water resistant FOAMULAR® insulation is often used as lightweight fill for building and road construction, or as a lightweight replacement for soil. FOAMULAR® XPS can be stacked to create contours and landscape features on vegetated plaza decks. It can also be used to replace the overburden on soft and unstable soil, for ground stabilization, pavement or sub-slab insulation.

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