

TECHNICAL NOTICE TN-001

REQUIRED ROOF UNDERLAYMENT OVER INNOVAPANEL® STRUCTURAL INSULATED PANELS

NOTICE TO ALL ROOFING CONTRACTORS, ROOF CONSULTANTS, BUILDING OWNERS & DESIGN PROFESSIONALS

IMPORTANT INSTALLATION REQUIREMENT

InnovaPanel® Structural Insulated Panels (SIPs) incorporate a closed-cell expanded polystyrene (EPS) insulation core.

The closed-cell EPS core functions as a **vapor barrier**, significantly limiting vapor transmission through the panel assembly.

Because moisture cannot readily migrate through the insulated panel to the interior of the building, the roof assembly **must always be designed to permit drying toward the exterior.**

Failure to provide an outward drying path may trap moisture within the roof assembly and can lead to premature roofing failures.

DO NOT INSTALL

Do NOT install vapor-impermeable roofing membranes directly against the exterior facer of an InnovaPanel® SIP roof.

This includes, but is not limited to:

- Self-adhered (peel-and-stick) underlayment
- Ice and water shield membranes
- Self-adhered waterproofing membranes
- Fully adhered vapor barrier membranes
- Other non-breathable roofing underlayment

when installed **directly against the SIP panel surface**. Installing these materials directly against the SIP creates a **double vapor barrier**.

WHY THIS IS IMPORTANT

A conventional vented roof constructed with trusses and wood roof sheathing can often dry to the interior attic space.

An InnovaPanel® roof is different.

Because the panel contains **closed-cell EPS insulation**, moisture cannot migrate through the panel toward the conditioned interior.

If a vapor-impermeable membrane is installed directly on the panel facer, any moisture introduced into the roof assembly—including:

- Construction moisture
- Rain during construction
- Condensation
- Incidental moisture
- Minor roof leaks

may become trapped between:

- the exterior roofing membrane, and
- the SIP panel facer.

This condition significantly reduces the roof assembly's ability to dry.

SIMILAR TO CLOSED-CELL SPRAY FOAM

This condition is similar to roof assemblies insulated with **closed-cell spray polyurethane foam**, where building science and roofing manufacturers require careful consideration of vapor control and drying potential.

In both systems, the insulation itself functions as a vapor retarder.

Therefore, the roofing assembly must be designed to allow incidental moisture to dry outward.

REQUIRED INSTALLATION

Before installing shingles, metal roofing, tile roofing, slate, synthetic roofing, or other roof coverings over an InnovaPanel® SIP roof:

Install an approved vapor-permeable roofing base sheet or underlayment directly over the SIP panel facer.

The vapor-permeable base sheet allows incidental moisture within the roof assembly to migrate outward while maintaining protection during roof construction.

Roofing materials shall then be installed in accordance with both:

- the roofing manufacturer's published installation instructions, and
- Innova Panel recommendations.

APPLIES TO ALL ROOF SYSTEMS

This requirement applies to virtually all roofing systems, including:

- Asphalt shingles
- Architectural shingles
- Standing seam metal roofing
- Screw-down metal roofing
- Clay tile
- Concrete tile
- Synthetic slate
- Composite roofing
- Mechanically attached membranes
- Liquid-applied roofing systems
- Specialty roofing assemblies

BEFORE INSTALLING

Roofing contractors shall verify:

- ✓ Vapor-permeable base sheet installed
- ✓ Roof surface completely dry
- ✓ Panel joints properly sealed
- ✓ Roof penetrations flashed
- ✓ Roof assembly complies with roofing manufacturer's requirements

FAILURE TO FOLLOW THIS REQUIREMENT MAY RESULT IN

- Moisture entrapment
- Condensation within the roof assembly
- Premature roofing deterioration
- Reduced insulation performance
- Mold or mildew development
- Reduced roof service life
- Loss of manufacturer warranty coverage

TECHNICAL ASSISTANCE

If there is any uncertainty regarding the compatibility of a proposed roofing system with the InnovaPanel® Building System, **contact Innova Panel, LLC before roofing installation begins.**

Our Technical Department can review proposed roof assemblies and recommend approved installation methods.

INNOVA PANEL, LLC

1541B North Powerline Road
Pompano Beach, Florida 33069

Technical Support

Phone: (786) 703-2194

Email: **info@innovaebbs.com**

www.InnovaPanel.com