

TL-0013 — Rigid Roof Insulation Boards and CertainTeed Underlayments

In recent years construction schedules and building assemblies have become more complicated. This has resulted in more projects being built during cold weather months and more complex roof/insulation assemblies.

Common applications of GRACE VYCOR™ portfolio of self-adhered underlayments to rigid roof insulation include vapor barriers and a temporary roof covering, while waiting for delivery of metal roof systems.

When a GRACE VYCOR™ self-adhered underlayment (GRACE VYCOR™ ICE & WATER SHIELD®, GRACE VYCOR™ ICE & WATER SHIELD® HT, GRACE VYCOR™ ULTRA™, GRACE VYCOR™ SELECT™, and ROOF DETAIL MEMBRANE) is applied to a structural roof deck, the deck acts as a heat sink. Excess heat build-up in the membrane is transferred to the structural roof deck. On the contrary, when a GRACE VYCOR™ underlayment is installed directly to rigid roof insulation (under a metal roof covering), there is little or no heat sink effect and, therefore, excess heat is not transmitted through the membrane. Under such conditions, which usually occur in warmer climates such as the desert southwest or at high altitudes, it is recommended that GRACE VYCOR™ ULTRA™ be used for improved thermal stability.

GRACE VYCOR™ ULTRA™ and GRACE VYCOR™ ICE & WATER SHIELD® HT are the only CertainTeed underlayments recommended for installation directly to rigid roof insulation in the desert southwest United States or at high altitudes.

Adhesion to rigid roof insulation boards varies. Porous and dusty surfaces such as Perlite Board, wood fiberboard and some of the glass scrims, provide poor initial adhesion. The use of a primer, such as PERM-A-BARRIER® WB Primer will help adhesion to these surfaces. If the primer is necessary, it should be applied at the rate of 250–350 ft²/gal (6–8 m²/L). PERM-A-BARRIER® WB Primer is slippery when wet. Allow the primer to dry thoroughly before walking on the insulation surface. Dust free, smooth insulation facers, such as foil asphalt impregnated glass scrims and some of the papers, provide the best initial adhesion. The choice of the insulation board or use of a primer is the responsibility of the specifiers. CertainTeed recommends using an insulation board that provides the stability and an I-60 wind uplift.

Cover the exposed membrane with roofing material as soon as possible. When the underlayment is adhered to roof insulation, exposure times may shorten, and minimum application temperatures may become more critical.



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