

# ECOBATT<sup>®</sup> INTEGRATED ROOF DECK (IRD) INSULATION

A cutting-edge solution for <u>both</u> Vented and Unvented High Performance Attics.



Quick and easy to install using only a staple gun



Provides continuous insulation underneath the roof deck, enveloping the top chord of the roof truss and creating a thermal break



Insulation is not compressed by straps or wires, allowing the full thermal performance and helping to deliver a Quality Insulation Installation (QII)



Critical to acheiving a High Performance Attic and meeting the Title 24 Option B High-Performance Attic Prescriptive Method code requirements

## HIGH PERFORMANCE **VENTED** ATTICS



#### High-Performance R-38+R-19 Attics: 2019 Title 24 Compliance Impact 8.0 7.0 6.0 Impact 5.0 4.0 3.0 2.0 1.0 0.0 Efficiency 2-Santa Ros Santa Marti 1-580 Die9 4.581,105 6-Torranc 1 Red Blu 3-Oaklan 15Palm Spin 8-Fullente 1.3.F109 9.Buba 12-Sacramer 16 Blue Carri ORIVERS APalme

NOTE: Compared to ceiling only R-38 attic in typical tract home in 2019 code software.

New code requirements offer insulation options for vented attics—where HVAC systems are often placed in states where basements are not standard. EcoBatt IRD insulation is an economical solution to support the Title 24 Option B High-Performance Attic Prescriptive Method code requirements.

#### **QUALITY INSULATION INSTALLATION (QII)**

- Insulation is not compressed by straps or wires, allowing the full R-19 thermal performance to meet Title-24 modeling prescriptive requirements
- Provides continuous insulation underneath the roof deck, enveloping the truss chords and creating a thermal break
- Allows for smooth QII inspections

## TRADEOFFS THAT MAY ACHIEVE COST SAVINGS COMPARED TO OTHER ENERGY SAVING FEATURES FOR THE HOME:

 Potentially eliminates tankless 0.95 hot water heater and other energy saving features



## HIGH PERFORMANCE **UNVENTED** ATTICS





NOTE: Compared to Ceiling only R-38 attic in typical tract home in 2019 code software. Model includes R-5 to R-15 rigid foam above roof deck in CZs where required by code (1-5,16).

The 2019 California Residential Code (CRC) has adopted the 2018 International Residential Code (IRC) for use in Unvented roof assemblies. IRD provides the insulation component of an unvented attic assembly. Air sealing the attic is another important component of the unvented attic and special attention should be given to the roof deck, gable ends, eaves and any roof penetrations.

## HIGH PERFORMANCE ATTIC ASSEMBLY FOR UNVENTED ATTICS

- A vapor diffusion port must be installed equal to 1/600 of the ceiling area
- Vapor diffusion must be located within 12" of the highest point of the roof
- International Residential Code (IRC) code requires 50 CFM of conditioned air be supplied per 1,000 sq. ft. of ceiling area
- Unvented Attics present potential cost savings over Vented Attics

### **QUALITY INSULATION INSTALLATION (QII)**

- Allows full R-38 thermal performance to meet Title-24 modeling for prescriptive requirements
- Provides a uniform layer of insulation underneath the roof deck
- Creates a thermal break by enveloping the top chord of the roof truss
- Meets the requirements for air-permeable insulation system for use in unvented attic assemblies per the 2009, 2012 and 2015 IRC. IRD is approved for use in IRC/IECC Climate Zones 2B & 3B.

FORMS AVAILABLE I WOOD FRAME CONSTRUCTION					
Product Code	Reference Number	R-Value	Thickness	Description	Coverage
596035	223IRD	R-19	6¼" (159 mm)	KSK, PERF 6¼" x 24" x 48"	128 sq. ft./bag
625239	237IRD	R-38	12" (305 mm)	KSK,PERF 12" x 24" x 48"	64 sq. ft./bag

#### **DEFINING CALIFORNIA'S TITLE 24 CODE REQUIREMENTS**

(c) Prescriptive Standards/Component Package. Buildings that comply with the prescriptive standards shall be designed, constructed, and equipped to meet all of the requirements for the appropriate Climate Zone shown in Table 150.1-A. In Table 150.1-A, a NA (not allowed) means that feature is not permitted in a particular Climate Zone and a NR (no requirement) means that there is no prescriptive requirement for that feature in a particular Climate Zone. Installed components shall meet the following requirements:

- 1. Insulation.
  - A. Roof and Ceiling insulation shall be installed in a ventilated attic with an R-value equal to or greater than that shown in Table 150.1-A meeting options i through iii below.
    - ii. Option B: A minimum R-value of insulation installed between the roof rafters in contact with the roof deck and an additional layer of ceiling insulation located between the attic and the conditioned space when meeting Section 150.1(c)9A; or
    - iii. Option C: A minimum R-value of ceiling insulation located between the attic and the conditioned space when meeting Section 150.1(c)9B.

**NOTE:** Low-rise residential single-family and multi-family buildings with the ducts and air handler located in the conditioned space, as specified by Section 150.1(c)9B, need only comply with insulation requirements of Option C.

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Check with your Knauf Insulation Territory Manager to ensure information is current.

The chemical and physical properties of this product represent average values determined in accordance with accepted test methods. The data is subject to normal manufacturing variations. The data is supplied as a technical service and is subject to change without notice. References to numerical flame spread ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

This product is covered by one or more U.S. and/or other patents. (#10,948,809) See patent <u>www.knaufnorthamerica.com/patents</u>

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Visit knaufnorthamerica.com to learn more.

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