High Density Building Insulation

with ECOSE® Technology

Submittal Date _____

Product Provided

EcoBatt® Insulation with ECOSE® Technology

High density glasswool insulation is specifically designed for sidewall, cathedral ceiling and floor applications where optimal thermal performance is required, and space for insulation is limited. Knauf Insulation High Density (HD) Ecobatt products offer a superior thermal value per inch as compared to standard building insulation products.

R-15-3½" High Density EcoBatt batts are designed for use in 2 x 4 framed wall sections. R-21-5½" and R-23-5½" High Density batts are designed for use in 2 x 6 framed sidewalls and floor assemblies, where air spaces are neither required nor desired. R-30-8¼" High Density Cathedral Ceiling batts are designed for use in 2 x 10 framed cathedral ceiling or floor assemblies where a 1" air space is required. R-38-10¼" High Density Cathedral Ceiling batts are designed for use in 2 x 12 framed cathedral ceiling or floor assemblies where a 1" air space is required.

○ **Unfaced HD EcoBatt® Insulation**

Glasswool insulation is designed to be friction fit between framing members. They can be used in applications with specifier permitted choice of warm side vapor retarders, including foil backed gypsum board or polyethylene film.

Unfaced High Density glasswool insulation is also an excellent sound control insulation, designed for installation in partition walls and floor assemblies, it will serve to retard the transmission of airborne noise.

When tested in accordance with ASTM E 84, material has a Fire Hazard Classification of 25/50 or less.

Complies with the requirements of the applicable ASTM and cancelled federal specifications:

ASTM C 665, Type I, Class A

HH-I-521F, Type I, Class A

ASTM E 136

- ○ 3½" R-15HD
- ○ 5½" R-21HD
- ○ 5½" R-23HD
- ○ 8¼" R-30HD
- ○ 10¼" R-38HD

Certified for indoor air quality as a low emitting product by The GREENGUARD Environmental Institute to both the GREENGUARD Indoor Air Quality Certification Program℠ and the more stringent GREENGUARD Children & Schools standard℠ and is verified to be formaldehyde free.

○ **Kraft Faced HD EcoBatt® Insulation**

Glasswool insulation with asphalted kraft paper with or without stapling flanges. Kraft vapor retarder has vapor transmission (permeance) rating of 1.0 or less.

Kraft Faced High Density glasswool insulation is also an excellent sound control insulation, designed for installation in partition walls and floor assemblies, it will serve to retard the transmission of airborne noise. Kraft facing will burn and should be covered with an approved finish material, and should not be left exposed.

Complies with the requirements of the applicable ASTM and cancelled federal specifications:

ASTM C 665, Type II, Class C

HH-I-521F, Type II, Class C

- ○ 3½" R-15HD
- ○ 5½" R-21HD
- ○ 5½" R-23HD
- ○ 8¼" R-30HD
- ○ 10¼" R-38HD

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○ **FSK-25 Foli Faced Batts**

EcoBatt® Insulation with ECOSE® Technology

Glasswool foil insulation with flanged reinforced foil/scrim/kraft facing with an average vapor transmision (permeance) rating of 0.04.

When tested in accordance with ASTM E 84, material has a Fire Hazard Classification of 25/50 or less.

COmplies with the requirements of the applicable ASTM and cancelled federal specifications:

ASTM C 655, Type III, Class A

HH-I-521F, Type III, Class A

- ○ 5½ R-21HD

ECOSE® Technology Description

ECOSE Technology is a revolutionary new binder chemistry that makes Knauf Insulation products even more sustainable than ever. It is based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals traditionally used in fiber glass insulation products. ECOSE Technology reduces binder embodied energy and does not contain phenol, formaldehyde, acrylics or artificial colors.

Sustainability

Carbon negative: meaning Knauf Insulation products used for thermal insulating purposes recover the energy that it took to make them in just hours or days, depending on the application. Once installed, the product continues to save energy and reduce carbon generation as long as it is in place.

- Earthwool fiber glass insulation contains three primary ingredients:
  - More than 60% recycled post-consumer glass content verified every 6 months by UL Environment.
  - Sand, one of the world's most abundant resources.
  - Our green chemistry initiative ECOSE Technology, which reduces binder embodied energy by up to 70%.
    - It is anticipated to reduce its Global Warming Potential (GWP) by approximately 4%, a significant reduction in our carbon footprint

Thermal Performance

Thermal resistance (R-value) of the blanket insulation only is certified to be as represented above when measured at a mean temperature of 75°F (24°C) and subject to manufacturing and testing tolerances.

Fiber Glass and Mold

Glasswool insulation will not sustain mold growth. However, mold can grow on almost any material when it becomes wet and contaminated. Carefully inspect any insulation that has been exposed to water. If it shows any sign of mold it must be discarded. If the material is wet but shows no evidence of mold, it should be dried rapidly and thoroughly. If it shows signs of facing degradation from wetting, it should be replaced.

Quality Assurance

On-line production is periodically tested to ensure that Knauf Insulation delivers the stated thermal performance or better when properly installed at the label thickness.

See Knauf Insulation Commercial Building Insulation Submittal (BI-SS-7e) or Building Insulation Submittal (BI-SS-12e) for additional products.

Knauf Insulation High Density EcoBatt® Building Insulation is certified for indoor air quality as a low emitting product by The GREENGUARD Environmental Institute to both the GREENGUARD Certification Program℠ and the more stringent GREENGUARD Children & Schools℠ standard and is verified to be formaldehyde free. www.greenguard.org