KNAUF INSULATION

1. Product Name

Building Insulation
- Unfaced Batts and Blankets
- Foil-Faced Batts and Blankets
- Kraft-Faced Batts and Blankets
- FSK-25 Foil-Faced Batts and Blankets
- Basement Wall Insulation
- Sill Sealer

QuietTherm® Insulation
- Unfaced QuietTherm® Batts
- Kraft-Faced QuietTherm® Batts

High Density Building Insulation
- Unfaced HD Batts
- Kraft-Faced HD Batts

2. Manufacturer

Knauf Insulation
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3. Product Description

BASIC USE

Knauf provides a full line of high quality fiber glass insulation products. Knauf insulation is ideal for new construction or retrofit applications, including exterior and partition walls, floors and ceilings. Products include high density and standard batts, blankets, rolls and rigid board insulation, available faced or unfaced. Knauf insulation products offer high energy efficiency and cost-effectiveness in both wood and steel stud construction.

BENEFITS
- Lightweight and easy to cut for quicker installation and lower field costs
- High resiliency and quick recovery to full thickness
- Superior sound control properties reduce sound transmission between walls, ceilings and floors
- Unitized packaging reduces delivery costs and storage space
- Available unfaced or with kraft, foil or FSK-foil facing
- Facing products resist tears; markings in 1' (304.8 mm) increments allow for easier field fabrication
- Extra wide stapling flange allows for faster installation

TYPES & MATERIAL COMPOSITION

Building Insulation

Unfaced Batts and Blankets - This fiber glass insulation is designed to be friction fit between framing members. A choice of warm side vapor retarders, including foil-backed gypsum board or polyethylene film, is available. Unfaced fiber glass insulation is also an excellent sound control insulation, designed for installation in floor systems and in partition walls between rooms or dwellings.

Foil-Faced Batts and Blankets - This line includes fiber glass foil insulation with asphalt-coated kraft/foil facing with flanges. The foil vapor retarder has a vapor transmission (permeance) rating of 0.05 or less.

Kraft-Faced Batts and Blankets - A fiber glass insulation with asphalted kraft paper with or without stapling flanges, it features a kraft vapor retarder with a vapor transmission (permeance) rating of 1.0 or less. Kraft-faced fiber glass insulation is also an excellent sound control insulation, designed for installation in floor systems and in partition walls between rooms or dwellings.

FSK-25 Foil-Faced Batts and Blankets - This fiber glass insulation features flanged reinforced 25/50 rated foil/scrim/kraft facing with an average vapor transmission (permeance) rating of 0.04.

Basement Wall Insulation - A flexible fiber glass blanket, this line comes with a choice of reinforced vapor barrier. It is a cost-effective thermal insulation for low traffic areas when affixed to the interior side of basement masonry walls.

Sill Sealer - This flexible unfaced fiber glass insulation is designed for use between the sill plate and the foundation wall to provide an air infiltration barrier.

QuietTherm® Insulation

Unfaced QuietTherm® Batts - These fiber glass insulation batts are designed to help control sound between metal stud interior walls and floor/ceilings. They can be used in exterior wall applications with specifier choice of warm side vapor retarder, including foil-backed gypsum board or polyethylene film.

Kraft-Faced QuietTherm® Batts - A fiber glass insulation with asphalted kraft paper with stapling flanges, the Kraft vapor retarder has a vapor transmission (permeance) rating of 1.0 or less. They can be used in either metal stud interior or exterior wall and ceiling applications to provide thermal and acoustical benefits.

High Density Building Insulation

High density fiber glass insulation is specifically designed for sidewall, cathedral ceiling, and floor applications where optimal thermal performance is required, and space for insulation is limited. Knauf High Density (HD) products offer a superior thermal value per inch as compared to standard building insulation products.
- R-15 3 1/2" (89 mm) HD batts are designed for use in 2 x 4 framed wall sections
- R-21 5 1/2" (140 mm) HD batts are designed for use in 2 x 6 framed sidewalls and floor assemblies, where airspaces are neither required nor desired
- R-30 8 1/4" (210 mm) HD cathedral ceiling batts are designed for use in 2 x 10 framed cathedral ceiling or floor assemblies where a 1" (25.4 mm) airspace is required
- R-38 10 1/4" (260 mm) HD cathedral ceiling batts are designed for use in 2 x 12 framed cathedral ceiling or floor assemblies where a 1" (25.4 mm) airspace is required

Unfaced HD Batts - This fiber glass insulation is designed to be friction fit between framing members. Warm side vapor retarders include foil-backed gypsum board or polyethylene film. Unfaced HD fiber glass insulation is also an excellent sound control insulation. Designed for installation in partition walls and floor assemblies, it will retard the transmission of airborne noise.

Kraft-Faced HD Batts - A fiber glass insulation with asphalted kraft paper with stapling flanges, the kraft vapor retarder has a vapor transmission (permeance) rating of 1.0 or less. Kraft-faced HD fiber glass insulation is also an excellent sound control insulation. Designed for installation in partition walls and floor assemblies, it will retard the transmission of airborne noise.

SIZES

Unfaced Batts and Blankets
- 2 1/2" (64 mm) R-8
- 3 1/2" (89 mm) R-11
- 3 1/2" (89 mm) R-13
- 6 1/4" (159 mm) R-19
- 6 1/2" (165 mm) R-22
- 8 1/2" (216 mm) R-25
- 9" (229 mm) R-26
- 10" (254 mm) R-30
- 12" (305 mm) R-38

Foil-Faced Batts and Blankets
- 3 1/2" (89 mm) R-11
- 3 1/2" (89 mm) R-13
- 6 1/4" (159 mm) R-19
- 9" (229 mm) R-26
- 10" (254 mm) R-30
- 12" (305 mm) R-38

Kraft-Faced Batts and Blankets
- 3 1/2" (89 mm) R-11
- 3 1/2" (89 mm) R-13
- 6 1/4" (159 mm) R-19
- 6 1/2" (165 mm) R-22
- 9" (229 mm) R-26
- 10" (254 mm) R-30
- 12" (305 mm) R-38

FSK-25 Foil-Faced Batts and Blankets
- 3 1/2" (89 mm) R-11
- 3 1/2" (89 mm) R-13
- 6 1/4" (159 mm) R-19
- 8 1/2" (216 mm) R-25
- 9" (229 mm) R-26
- 10" (254 mm) R-30
- 12" (305 mm) R-38

Basement Wall Insulation
- 3 1/2" (89 mm) R-11

Sill Sealer
- 1 1/4" x 4" (32 x 102 mm)
- 1 1/4" x 6" (32 x 152 mm)

Unfaced QuietTherm Batts
- 2 1/2" (64 mm) R-8
- 3 1/2" (89 mm) R-11
- 3 1/2" (89 mm) R-13
- 6 1/4" (159 mm) R-19

Kraft-Faced QuietTherm Batts
- 3 1/2" (89 mm) R-11
- 3 1/2" (89 mm) R-13
- 6 1/4" (159 mm) R-19

Unfaced HD Batts
- 3 1/2" (89 mm) R-15
- 5 1/2" (140 mm) R-21
- 8 1/4" (210 mm) R-30
- 10 1/4" (260 mm) R-38

Kraft-Faced HD Batts
- 3 1/2" (89 mm) R-15
- 5 1/2" (140 mm) R-21
- 8 1/4" (210 mm) R-30
- 10 1/4" (260 mm) R-38

PACKAGING

Knauf's packages feature complete installation instructions and a highly visible color coding system that follows industry standards. Knauf packages are lightweight, stack without slipping and are sized to fit easily under floors and through scuttle holes.

Batts
- Batts are packaged in strong, white poly bags that offer excellent protection from abuse, dust and moisture
- Knauf's unitized packaging combines 4 or 5 batt bags in one convenient banded package, which requires less space for storage and makes loading, unloading and jobsite delivery easier

Rolls
- Standard rolls may be skip-chopped to specific lengths and are packaged in clear poly overwrap that protects the product during shipment and storage
- Retail rolls stack easily for display and are unitized to simplify storage and handling
- Retail rolls have complete DIY installation instructions and helpful product selection guides

LIMITATIONS

Fiber glass insulation will not sustain mold growth. However, mold can grow on almost any material when it becomes wet and contaminated with organic materials. 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

4. Technical Data

APPLICABLE STANDARDS

ASTM International
- ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- ASTM C665 Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing
- ASTM C1104/C1104M Standard Test Method for Determining the Water Vapor Sorption of Unfaced Mineral Fiber Insulation
- ASTM C1338 Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings
- ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials
- ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C

APPROVALS
- California Energy Commission
- Dade County, Florida
- MEA #498-90-M
- State of Minnesota
- Greenguard Environmental Institute® Certified
- Greenguard Children and Schools™ Certified

ENVIRONMENTAL CONSIDERATIONS

Knauf fiber glass has been tested for formaldehyde off-gassing and was found to be within OSHA limits. It diminishes to immeasurable levels within a short time frame.

PHYSICAL/CHEMICAL PROPERTIES

Test reports, performance data and additional product information are available upon request.
- Unfaced (ASTM C665) - Type I, Class A
- Kraft-faced (ASTM C665) - Type II, Class C
- FSK-25 Foil-faced (ASTM C665) - Type III, Class A
- Foil-faced (ASTM C665) - Type III, Class B
- R-value, blanket insulation (ASTM C518) - Ranges from 11 ft^2 x h x °F/Btu (2 m^2 x K/W) at 3.5" (89 mm) thickness to 38 ft^2 x h x °F/Btu (7 m^2 x K/W) in 12" (305 mm) thickness
- Water vapor absorption (ASTM C1104) - 5% maximum by weight
- Corrosion (ASTM C665) - No greater than sterile cotton
- Microbial growth (ASTM C1338) - Does not support microbial growth

Facing Permeance (ASTM E96)
- Kraft-faced products have a water vapor permeance of 1.0 or less
- FSK foil-faced products have ratings of 0.04
- Foil-faced products have ratings of 0.05

FIRE PERFORMANCE
- Fire resistance (unfaced and FSK) - Meet Class A flame requirements
- Flamespread (unfaced and FSK) - ASTM E84, 25 or less; smoke developed, 50 or less

SOUND PERFORMANCE

Sound performance varies by application. Various STC and NRC ratings result with different thicknesses, densities and construction. Refer to specific design assembly construction details.

5. Installation

PREPARATORY WORK

Handle and store product according to Knauf recommendations.

Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Verify that site conditions are acceptable for installation of insulation. Do not proceed with installation of insulation until unacceptable conditions are corrected.

METHODS

Install building insulation to comply with thermal and sound control requirements. Fit insulation to areas and conditions required without voids.

Fit insulation to form a complete, tight-fitting insulation blanket around required areas. Position flanged blankets as recommended by manufacturer for application. Friction fit or fasten insulation between framing members or continuous sealed joints. If a separate vapor retarder is required, position it as indicated on drawings.

Coordinate insulation installation adjacent to lighting fixtures, fans or other heat-generating electrical devices, or adjacent to other heat-generating devices, including furnaces, heaters and flues, with manufacturer's recommendations and regulations of authorities having jurisdiction.

PRECAUTIONS

Kraft and standard foil facing will burn and should not be left exposed. Install kraft and standard foil facing in contact with approved finish material.

BUILDING CODES

Current data on building code requirements and product compliance may be obtained from Knauf technical support specialists. Installation must comply with the requirements of all applicable local, state and national code jurisdictions.

6. Availability & Cost

AVAILABILITY

These products are available throughout the United States.

COST

Budget installed cost information may be obtained from the manufacturer.

7. Warranty

Knauf Insulation offers a 1 year limited warranty on manufacturing defects for fiber glass insulation.

8. Maintenance

No maintenance is required for properly installed insulation products.

9. Technical Services

Technical support for Knauf Insulation products is available by calling (800) 825-4434.

10. Filing Systems

- Reed First Source®
- MANU-SPEC®
- Sweet's Catalog Files
- Additional product information is available from the manufacturer upon request.