



Data Sheet

BI-BT-DS-EC 11-15

ECOBATT®

Thermal/Acoustical Insulation



Knauf Insulation EcoBatt® Insulation with ECOSE® Technology

Description

Knauf Insulation EcoBatt® Insulation is made from highly resilient, inorganic glass fibers bonded with ECOSE® Technology. The product is designed for cost-effective thermal and acoustical barriers for energy-efficient construction.

ECOSE® Technology Description

ECOSE technology is a revolutionary binder chemistry that enhances the sustainability of our products. The "binder" is the bond that holds our glass mineral wool product together and gives the product its shape and brown color. ECOSE technology is a plant-based, sustainable chemistry that replaces the phenol/formaldehyde (PF) binder traditionally used in glass mineral wool products. Products using ECOSE technology are formaldehyde-free and have reduced global warming potential when compared to our products of the past.

Application

Knauf Insulation EcoBatt insulation products can be used in new and retrofit wood and metal frame applications in residential and commercial structures. These applications include thermal and acoustical treatments to walls, ceilings and floors. In addition, High Density (HD) EcoBatt insulation is available where optimal thermal performance is required and space for insulation is limited.

Residential Applications

Knauf Insulation offers a full line of standard and high-density EcoBatt insulation with a wide range of sizes and R-values. This residential insulation can be used for cavity walls, floors, ceilings, attics, basements and crawlspaces. EcoBatt insulation is also very effective at reducing the transmission of noise in the house. The batts are highly resilient, recovering quickly to full thickness.

Light Commercial Applications

This full line of standard and high-density EcoBatt insulation for wood and metal frame construction is available unfaced. EcoBatt insulation can improve STC ratings in wood stud construction by 3 to 5 points and in metal stud construction by 8 to 10 points, depending on the complexity of the wall configuration and layers of insulation. Knauf Insulation commercial building products can be used for exterior and partition walls, floors, crawlspaces and a variety of ceiling applications.

Acoustical Performance

EcoBatt insulation provides excellent acoustical properties and will reduce sound transmission when properly installed in partition walls and acoustical ceiling and floor systems. The STC Ratings table, right, illustrates the improved STC Ratings in a commercial application using acoustical/thermal insulation compared to no insulation.

Glass Mineral Wool and Mold

Glass Mineral Wool 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.

Technical Data

Surface Burning Characteristics

- Unfaced products do not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84.

Thermal Value

- Thermal resistivity (R-value) is determined using industry standard test method ASTM C 518.

Water Vapor Sorption (ASTM C 1104)

- Less than 5% by weight.

Corrosion (ASTM C 665)

- No greater than sterile cotton.

Microbial Growth (ASTM C 1338)

- Does not support microbial growth.

Noncombustible (ASTM E 136)

- Unfaced insulation is non-combustible.

Specification Compliance

- ASTM C 665; Type I, Class A (unfaced)
- CCMC 13069-L

Features and Benefits

Proven Performance

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission in the home when properly installed in partition walls and ceiling and floor systems.

Superior Handling

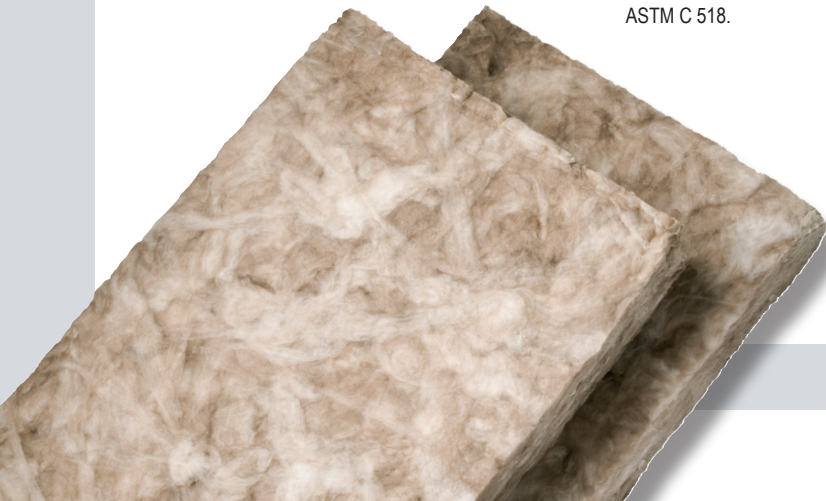
- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials made of resilient fibers cut easily, install fast with low dust.

Indoor Air Quality

- UL Environment GREENGUARD Certified
- UL Environment GREENGUARD GOLD Certified
- UL Environment GREENGUARD validated to be formaldehyde free
- Tested and certified to meet all the requirements of EUCEB

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.



- EcoBatt insulation contains three primary ingredients:
 - Sand, one of the world's most abundant resources
 - Contains recycled post-consumer glass
 - 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

Convenient Packaging, Easier Handling

- Knauf Insulation EcoBatt insulation is packaged in a strong, white, poly bag with closed ends, offering excellent protection from abuse, dust and moisture.
- Our packaging features complete installation instructions and an easily visible R-value color-coded label which follows industry standards, making Knauf Insulation product sizes and specifications easy to read.
- Knauf Insulation's unitized packaging saves time at the jobsite and saves space in the warehouse.
- Master bag batt units ensure reduced handling

costs with greater compression—more square feet per bag, more square feet per truckload, fewer trips to the job site and less warehouse space for storage.

Superior Service and Support

- Prompt, on-time delivery helps control inventory costs and meet customer expectations.
- Our committed network of distributors ensures fast order fulfillment and faster inventory turns.
- 24/7 access to product submittals ensures product acceptance and helps meet quotation deadlines.

Notes

The chemical and physical properties of Knauf Insulation EcoBatt insulation represent typical average values determined in accordance with accepted test methods. 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.

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

STC Ratings*

	With insulation	No insulation	With insulation	No insulation
Wood Frame, 2 x 4 (3½"- 4" Batt)	(with ½" gypsum wallboard both sides)		(with ⅝" gypsum wallboard both sides)	
Single studs/Single layer gypsum	38	35	38	34
Single studs/Resilient channel	47	39	52	40
Staggered studs/Single layer gypsum	49	39	51	43
Double stud walls/Single layer gypsum	57	46	56	45
Steel Frame (2½" studs) (3½"- 4" Batt)	(with ½" gypsum wallboard both sides)		(with ⅝" gypsum wallboard both sides)	
Single layer gypsum	45	36	47	39
Double layer gypsum one side/ Single layer gypsum other side	50	39	52	44
Double layer both sides	56	45	57	48
Steel Frame (3⅝" studs) (3½"- 4" Batt)	(with ½" gypsum wallboard both sides)		(with ⅝" gypsum wallboard both sides)	
Single layer gypsum	47	39	50	39
Double layer gypsum one side/ Single layer gypsum other side	52	42	55	47
Double layer both sides	56	50	58	52

*See NAIMA publication B1405 for additional information.



EcoBatt insulation is naturally brown — ECOSE® Technology assures no phenol, formaldehyde, acrylics or artificial colors are used in the manufacturing process.



EcoBatt insulation ensures the professional touch—consistent quality, low dust and easy to cut—handling characteristics that you've come to expect from Knauf Insulation.



Knauf Insulation manufactures a full line of EcoBatt insulation—a variety of widths, R-values, densities and facings.

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LEED Eligible Product

Use of this product may help building projects meet green building standards as set by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

LEED v2009

MR Credit 4.1 - 4.2 Recycled Content
MR Credit 5.1 - 5.2 Regional Materials

LEED v4

Knauf Insulation offers several products for both envelope and mechanical systems that have ingredient disclosure and transparency.
Please contact transparency@knaufinsulation.com for products that currently contribute to MR credits.



This product has been tested and is certified to meet the EUCEB requirements.



UL Environment GREENGUARD Gold

Knauf Insulation achieved UL Environment GREENGUARD Gold Certification and is validated to be formaldehyde free.

UL Environment GREENGUARD Certification Program

Products are certified to UL Environment GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg.

This product is covered by one or more U.S. and/or other patents. See patent www.knaufinsulation.us/patents.

Unfaced Batts

R-Value	Dimensions					
	Thickness		Width		Length	
R-8 RSI - 1.4	64 mm	2½ in	381 mm	15 in	1194 mm	47 in
	64 mm	2½ in	406 mm	16 in	1219 mm	48 in
	64 mm	2½ in	610 mm	24 in	1219 mm	48 in
R-12 RSI - 2.1	89 mm	3½ in	381 mm	15 in	1194 mm	47 in
	89 mm	3½ in	406 mm	16 in	1219 mm	48 in
	89 mm	3½ in	483 mm	19 in	1194 mm	47 in
	89 mm	3½ in	508 mm	20 in	1194 mm	47 in
	89 mm	3½ in	584 mm	23 in	1194 mm	47 in
	89 mm	3½ in	610 mm	24 in	1219 mm	48 in
R-14 RSI - 2.5	89 mm	3½ in	381 mm	15 in	1194 mm	47 in
	89 mm	3½ in	584 mm	23 in	1194 mm	47 in
R-20 RSI - 3.5	152 mm	6 in	381 mm	15 in	1194 mm	47 in
	152 mm	6 in	381 mm	15 in	1219 mm	48 in
	152 mm	6 in	406 mm	16 in	1219 mm	48 in
	152 mm	6 in	483 mm	19 in	1219 mm	48 in
	152 mm	6 in	508 mm	20 in	1194 mm	47 in
	152 mm	6 in	584 mm	23 in	1194 mm	47 in
	152 mm	6 in	610 mm	24 in	1219 mm	48 in
R-22 RSI - 3.9	140 mm	5½ in	381 mm	15 in	1194 mm	47 in
	140 mm	5½ in	584 mm	23 in	1194 mm	47 in
R-24HD RSI - 4.2	140 mm	5½ in	375 mm	14¾ in	1194 mm	47 in
	140 mm	5½ in	578 mm	22¾ in	1194 mm	47 in
R-28 RSI - 4.9	203 mm	8 in	292 mm	11½ in	1219 mm	48 in
	203 mm	8 in	381 mm	15 in	1219 mm	48 in
	203 mm	8 in	406 mm	16 in	1219 mm	48 in
	203 mm	8 in	584 mm	23 in	1219 mm	48 in
	203 mm	8 in	610 mm	24 in	1219 mm	48 in
R-31HD RSI - 5.5	241 mm	9½ in	406 mm	16 in	1219 mm	48 in
	241 mm	9½ in	610 mm	24 in	1219 mm	48 in
R-35HD RSI - 6.2	254 mm	10 in	406 mm	16 in	1219 mm	48 in
	254 mm	10 in	610 mm	24 in	1219 mm	48 in
R-40 RSI - 7.0	292 mm	11½ in	406 mm	16 in	1219 mm	48 in
	292 mm	11½ in	610 mm	24 in	1219 mm	48 in