



Data Sheet

BI-BT-DS-EC

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ECOBATT[®]

Thermal/Acoustical Insulation

with **ECOSE[®]** TECHNOLOGY

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

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.

PRODUCT FEATURES

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.

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.

INDOOR AIR QUALITY

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

SUSTAINABILITY

Knauf Insulation's 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.

Glass mineral wool insulation with ECOSE Technology contains three key ingredients:

- Recycled glass content, verified every six months by UL Environment
- Sand, one of the world's most abundant resources
- Our green chemistry initiative ECOSE Technology, which is validated to be formaldehyde-free

SPECIFICATION COMPLIANCE

- ASTM C665; Type I, Class A (unfaced)
- CCMC; 13069-L

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.

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 ensure information is current.

Technical Data

Property (Unit)	Test	Performance
Corrosion	ASTM C1617	Pass
Thermal Value	ASTM C518	See chart on next page
Water Vapor Permeance	ASTM E96	Kraft faced: 1.0 perms or less FSK foil faced: 0.04 perms Foil faced: 0.05 perms
Water Vapor Sorption (by weight)	ASTM C1104	Less than 5%
Combustibility	ASTM E136	Non-combustible
Mold Growth	ASTM C1338	Pass
Surface Burning Characteristics (flame spread/smoke developed)	ASTM E84	Unfaced and flamed-rated FSK facings: 25/50 Kraft facing will burn and should not be left exposed.

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) (2½"– 2⅝" 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



EcoBatt insulation is naturally brown— 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.

Unfaced Batts

R-Value	Dimensions					
	Thickness		Width		Length	
R-8 RSI - 1.4	64 mm	2½"	381 mm	15"	1194 mm	47"
	64 mm	2½"	406 mm	16"	1219 mm	48"
	64 mm	2½"	610 mm	24"	1219 mm	48"
R-12 RSI - 2.1	89 mm	3½"	381 mm	15"	1194 mm	47"
	89 mm	3½"	406 mm	16"	1219 mm	48"
	89 mm	3½"	483 mm	19"	1194 mm	47"
	89 mm	3½"	508 mm	20"	1194 mm	47"
	89 mm	3½"	584 mm	23"	1194 mm	47"
	89 mm	3½"	610 mm	24"	1219 mm	48"
R-14 RSI - 2.5	89 mm	3½"	381 mm	15"	1194 mm	47"
	89 mm	3½"	584 mm	23"	1194 mm	47"
R-20 RSI - 3.5	152 mm	6"	381 mm	15"	1194 mm	47"
	152 mm	6"	381 mm	15"	1219 mm	48"
	152 mm	6"	406 mm	16"	1219 mm	48"
	152 mm	6"	483 mm	19"	1219 mm	48"
	152 mm	6"	508 mm	20"	1194 mm	47"
	152 mm	6"	584 mm	23"	1194 mm	47"
R-22 RSI - 3.9	140 mm	5½"	381 mm	15"	1194 mm	47"
	140 mm	5½"	584 mm	23"	1194 mm	47"
R-24HD RSI - 4.2	140 mm	5½"	375 mm	14¾"	1194 mm	47"
	140 mm	5½"	578 mm	22¾"	1194 mm	47"
R-28 RSI - 4.9	203 mm	8"	292 mm	11½"	1219 mm	48"
	203 mm	8"	381 mm	15"	1219 mm	48"
	203 mm	8"	406 mm	16"	1219 mm	48"
	203 mm	8"	584 mm	23"	1219 mm	48"
	203 mm	8"	610 mm	24"	1219 mm	48"
R-31HD RSI - 5.5	241 mm	9½"	406 mm	16"	1219 mm	48"
	241 mm	9½"	610 mm	24"	1219 mm	48"
R-35HD RSI - 6.2	254 mm	10"	406 mm	16"	1219 mm	48"
	254 mm	10"	610 mm	24"	1219 mm	48"
R-40 RSI - 7.0	292 mm	11½"	406 mm	16"	1219 mm	48"
	292 mm	11½"	610 mm	24"	1219 mm	48"
R-31HD RSI - 5.5	241 mm	9½"	406 mm	16"	1219 mm	48"
	241 mm	9½"	609 mm	24"	1219 mm	48"
R-40 RSI - 7.0	292 mm	11½"	406 mm	16"	1219 mm	48"
	292 mm	11½"	609 mm	24"	1219 mm	48"

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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 EUCB requirements.



UL Environment GREENGUARD Certification Program

EcoBatt Insulation is certified to UL Environment GREENGUARD standards for low chemical emissions into indoor air during product usage.

UL Environment GREENGUARD Gold

Knauf Insulation has achieved UL Environment GREENGUARD Gold Certification for EcoBatt Insulation.

UL Environment Validated Formaldehyde Free

Knauf Insulation has achieved a UL Environment validation that EcoBatt Insulation is formaldehyde free.

UL Environment Certified EPD

Knauf Insulation has achieved an Environmental Product Declaration certification from UL Environment for EcoBatt Insulation. EPD Certification is documentation fully disclosing a product's environmental impact.

For more information, visit ul.com/spot.