

## Performance+ EcoBatt® with ECOSE® Technology

Product-Data-Sheet



### Description

Performance+ EcoBatt is a cost-effective solution for thermal and acoustical insulation, ideal for energy-efficient construction. It is suitable for both new builds and retrofits, with applications in wood and metal frame structures across residential, commercial, and manufactured housing projects. For areas with limited space where optimal thermal performance is required, High Density (HD) batts are available. Additionally, the Staple-Free batt insulation offers flangeless kraft-faced batts that friction-fit securely, between 16" on center wood studs, eliminating the need for staples.

### Application

Interior and exterior walls, partition walls, floors, ceilings, attics, basements and crawlspaces

### Specification Compliance

- ASTM C665 (facing);
  - Type I, Class A, (Unfaced)
  - Type II, Class C, Category 1 (Kraft)
  - Type III, Class A, Category 1 (FSK-25 foil)
  - Type III, Class B, Category 1 (Foil)
- California Energy Commission
- MEA #498-90-M
- State of Minnesota

Contractor: \_\_\_\_\_

Job: \_\_\_\_\_

Date: \_\_\_\_\_

### Indoor Air Quality

- Asthma & Allergy Friendly®
- Verified Healthier Air™
- UL Environment
  - GREENGUARD Certified
  - GREENGUARD Gold Certified
  - Validated to be Formaldehyde-Free
- EUCEB Certified

### Certifications



## Technical Data

Property (Unit)	Test	Performance
Corrosion	ASTM C1617	Pass
Thermal Value	ASTM C518	See Forms Available chart
Water Vapor Permeance	ASTM E96	Kraft Faced: 1.0 perms or less; FSK-25 and Foil Faced: 0.05 perms
Water Vapor Sorption (by weight)	ASTM C1104	Less than 5%
Combustibility	ASTM E136	Non-combustible (unfaced only)
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.

## Forms Available

R-Value	Thickness	Unfaced	Kraft	FSK-25	Standard Foil	Staple-Free
<b>Wood Frame Construction</b>						
R-11	3½"	11", 15¼", 19", 23¼"	15", 23"	-	-	-
R-13	3½"	11", 15", 23"	11", 15", 23"	16"	16"	15¼"
R-15 HD	3½"	15", 23"	15", 23"	-	-	15¼"
R-19	6¼"	12", 15", 15¼", 19", 23¼"	11", 15", 19", 23"	16"	24"	15¼"
R-20	5½"	15"	15"	-	-	-
R-21 HD	5½"	15", 23"	15", 23"	16"	-	15¼"
R-22	6½"	23"	15"	-	-	-
R-23 HD	5½"	15"	-	-	-	-
R-25	8"	16", 24"	15", 23"	-	-	-
R-30	10"	16", 19¼", 24"	16", 19", 24"	24", 24" E.F.	-	-
R-30 HD	8¼"	15", 23"	15", 23"	-	-	-
R-38	12"	16", 19¼", 24"	16", 19", 24"	-	-	-
R-38 HD	10¼"	15", 23"	15", 23"	-	-	-
R-49	13¾"	16", 24"	16", 19", 24"	24"	-	-
<b>Metal Frame Construction</b>						
R-8	2½"	16", 24"	-	-	-	-
R-11	3½"	16", 24"	16", 24"	-	-	-
R-13	3½"	16", 24"	16", 24"	16"	16"	-
R-15 HD	3½"	16"	-	-	-	-
R-19	6¼"	12", 16", 24"	16", 24"	16", 24"	16", 24"	-
R-21 HD	5½"	16", 24"	16"	16"	-	-
R-22	6½"	16", 24"	-	-	-	-
R-30	10"	-	-	24", 24" E.F.	-	-
R-38	10¼" 12"	24"	-	24"	-	-
<b>Manufactured Housing Rolls</b>						
R-7	2¼"	15", 16" 42", 48", 90", 96"	-	-	-	-
R-11	3½"	15", 48", 72", 84", 90", 96"	15"	-	-	-
R-13	3½"	15"	15"	-	-	-
R-19	6¼"	15", 48", 91½"	15", 23"	-	-	-

HD = High Density, E.F. = Extended Flange

This table is meant as a quick reference guide as product availability varies by region.

Please check with your Territory Manager for a full product offering in your region.

## Acoustical Performance

Performance+ EcoBatt provides excellent acoustical properties and will reduce sound transmission when properly installed in partition walls and acoustical ceiling and floor systems. Knauf acoustical/thermal insulation can improve STC ratings in wood stud construction by 3 to 5 points and metal stud construction by 8 to 10 points depending upon the complexity of the wall configurations, R-values and layers of insulation.

## Fiberglass and Mold

Fiberglass 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.

## Sustainability

Knauf products with ECOSE® Technology are made using our patented, bio-based binder - a smarter alternative to the phenol/formaldehyde (PF) binder traditionally used in fiberglass products. The bio-based binder holds our product together, gives the product its unique appearance and makes it formaldehyde-free. All of our products contain some raw materials from sustainable resources, such as recycled glass. And we're proud to be putting glass bottles back to work rather than into landfills. Our products are made with a minimum of 50% recycled glass.

STC Ratings				
	With insulation	No Insulation	With Insulation	No Insulation
<b>Wood Frame, 2 x 4 (3½" – 4" Batt), 16" O.C.</b>	<b>(½" gypsum wallboard both sides)</b>		<b>(with ⅝" Type X gypsum wallboard both sides)</b>	
Single studs/Single layer gypsum	38	35	38	34
Single studs/Resilient channel	47	39	50	40
Staggered studs/Single layer gypsum	49	39	51*	43
Double stud walls/Single layer gypsum	57	46	56	45
<b>Steel Frame (2½" studs) (2½" – 2⅝" Batt), 25 gauge, 24" O.C.</b>	<b>(with ½" gypsum wallboard both sides)</b>		<b>(with ⅝" Type X gypsum wallboard both sides)</b>	
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	54	45	57	48
<b>Steel Frame (3⅝" studs) (3½" – 4" Batt), 25 gauge, 24" O.C.</b>	<b>(with ½" gypsum wallboard both sides)</b>		<b>(with ⅝" Type X gypsum wallboard both sides)</b>	
Single layer gypsum	47	39	50	39
Double layer gypsum one side/Single layer gypsum other side	52	43	55	47

\*STC reflects two 2 ½" thick fiberglass batts used

Additional Assemblies	STC
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, single layer one side, double layer other side, resilient channel	55
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, double layer both sides, resilient channel	57
Wood frame, 2 x 4 staggered studs (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, single layer both sides	52
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ⅝" thick Type X gypsum board, single layer both sides	40
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ⅝" thick Type X gypsum board, single layer both sides, resilient channel	52

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.

Consult with or follow local building and energy codes to determine appropriate R-values and need for and placement of a vapor retarder.

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This product is covered by one or more U.S. and/or other patents.

See patent [www.knaufnorthamerica.com/patents](http://www.knaufnorthamerica.com/patents)

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