

EcoBatt® Installation Guide

Installation Instructions

CAUTION

Facing may be flammable:

Glass mineral wool insulation is non-combustible, but standard kraft and foil facings that are not fire-rated are combustible and should not be left exposed. FSK-25 foil facing is approved for exposed applications.

- Cover faced insulation with an approved interior finish, such as drywall, as required by local codes.

Provide heat source clearance:

- Install only non-combustible unfaced fiber glass insulation around chimneys, flues and other heat sources.
- DO NOT install insulation within 3 inches of recessed electrical fixtures, lights, fans or other heat-generating devices.

R-VALUE

"R" means "resistance" to heat flow. The higher the R-Value, the greater the insulating power. To get the marked R-Value, this insulation must be installed properly.

Specifications: this product conforms to the performance requirements of ASTM C 665. This material meets the Quality Standards of the State of California.

Tips to remember...

- Don't take the insulation out of the packages until you're ready to install. EcoBatt® insulation is compression-packed and will expand to the labeled thickness when the package is opened.
- Watch out for nails—especially in attics where roofing nails may protrude through the sheathing.
- Place boards over the joists to make a path.
- DO NOT block attic vents—provide plenty of attic ventilation to prevent condensation.
- Fill in all cracks around windows and doors.
- Be sure the insulation fits well, but is NOT overly compressed.
- Seal and wrap heating and air conditioning vents, ducts and water pipes in unheated areas.
- Patch any vapor retarder tears.
- Try to fit insulation behind pipes or other obstructions unless this would compress the insulation. If so, cut the insulation to fit around objects, beams or other barriers.

ATTICS

with Existing Insulation

Check the R-Value of your existing insulation to determine how much additional insulation you'll need. Faced fiber glass insulation should have the R-Value printed on the faced surface. For loose-fill attic insulation, look for an Attic Card stating the R-Value originally installed. If you cannot determine the R-Value of the existing insulation, estimate the R-Value of batt insulation by measuring the average thickness and multiplying by 3.1. Estimate loose-fill insulation by measuring the average thickness and multiplying by 2.3. Install an insulation product with at least the R-Value needed to make up the difference between the existing insulation and the minimum recommended R-Values for your area of the country.

To calculate the number of packages of insulation needed, determine the area of the attic (in square feet), by multiplying the length of the attic by its width.

The number of square feet of insulation material is clearly marked on each package. Divide the total attic area by the square footage in a package to determine the number of packages required. Round up to the nearest whole package.

- Install EcoBatt® unfaced batt insulation between the ceiling joists on top of existing insulation when the height of the existing insulation is less than the height of the joist. If the joists are full, place batts over existing insulation at right angles to the ceiling joists. Butt insulation batts snugly against each other.
- Begin by laying batts at the outer edges of the attic and work toward the middle and the attic access panel. Lay long runs first, using trimmed pieces for short spaces and between framing members.
- Butt the insulation snugly at all joints. Without compressing the insulation, push it under wiring or ductwork whenever possible. Do not block attic vents.
- Insulate the top of attic access panels by stapling or gluing insulation directly to the panel.

ATTICS

Uninsulated

- Install EcoBatt® kraft or unfaced batts in an uninsulated attic. Follow the above directions. Be sure to place faced batts with the vapor retarder down toward the inside of the home.

CATHEDRAL CEILINGS

Determine the maximum thickness of insulation that can be installed by subtracting 1" from the depth of the ceiling cavity. Select either EcoBatt® R-30 (8¼") or R-38 (10¼") High Density Cathedral Ceiling Insulation. Determine the width of insulation needed by measuring the typical distance between ceiling joists (15" or 23").

- Butt insulation firmly against both the top plate of the wall at the bottom and the ridge joist at the top of the cathedral ceiling. Do not push batts completely into the joist cavity. The front face of the batt should be flush with the face of the ceiling joist, leaving a 1" airspace between the batt and the underside of the roof deck. Stapling flanges to the face of the ceiling joists is the best way of maintaining proper batt position for faced products. Do not compress batts or block ventilation.
- Install kraft faced batts with the facing toward the inside of the home. For unfaced batts, consult local codes and practices for appropriate vapor retarded selection and positioning.

EXTERIOR WALLS

Wood Frame

- Determine the width of insulation needed (15" or 23") by measuring the typical distance between wall studs.
- When installing EcoBatt® kraft or foil-faced batts, place between framing members with the facing toward the warm-in-winter side of the home.
- When installing EcoBatt® unfaced batts, place between framing members. The selection and positioning of an appropriate vapor retarder, if required, should be in accordance with local codes and practices.
- Cover all insulation and vapor retarders with an approved finish material, (i.e. gypsum board).
- Be sure batts fit snugly against top and bottom wall plates. If desired, the flanges of faced products may be stapled to the face or inside of the wall studs.
- Without over-compressing, split insulation around wiring, plumbing, or ductwork whenever possible. Batt's can be partially cut or separated when fitting insulation behind wiring or plumbing fixtures.

- Place small pieces of insulation behind all outlet boxes. Do not over-compress insulation.
- EcoBatt Staple-Free Batt Insulation is a friction fit batt designed for use in standard 2" x 4" wood framed construction where the stud spacing is no more than 15" on center.
- For smaller stud cavities, cut staple-free batts $\frac{3}{4}$ " wider than the inside width dimensions of the wall cavity and follow the instructions above.
- The Installer should make certain that there are no obstructions that could prevent a tight fit and create a gap or void. Repair all tears in kraft facing.
- Do not leave kraft faced batts exposed. Cover with an approved finish material (i.e. gypsum board).
- Attention to detail is very important. Seal all penetrations in exterior walls with insulation caulk or foam sealant.

Metal Frame

- Install insulation with specified R-Value. If the R-Value is not specified, measure the depth of the metal stud and select the product with the highest R-Value that completely fills the cavity. Determine the width of insulation needed (usually 16" or 24") by measuring the typical distance between metal framing.
 - Install EcoBatt® kraft, foil or FSK-foil batts between framing members with facing toward the conditioned space.* Friction fit one side of the batt into the metal C-channel and butt the other edge against the metal stud.
 - Install insulation to cover the full height of the wall including Spandrel areas. Use unfaced insulation or FSK-foil faced insulation in areas, which will not be directly covered by an approved finish material (i.e. gypsum board).
- *In warm climates where high humidity prevails, faced products may be installed toward the exterior of the structure and away from the air-conditioned space in accordance with local codes and practices.
- Attention to detail is very important. Seal all penetrations in exterior walls with insulation caulk or foam sealants.

BASEMENT WALLS

Install furring strips or studs vertically against the foundation wall on 16" or 24" centers.

- Install EcoBatt® kraft or unfaced batt insulation between framing members. Apply kraft faced insulation with kraft facing toward the inside of the home.
- If desired, the flanges of faced products may be stapled to the face or inside of the wall studs.
- Friction-fit unfaced insulation between framing.
- For totally above grade walls, insulate per the instructions provided above for Exterior Walls.
- For partially or totally below grade walls, no vapor retarder is required. Therefore, unfaced batts should be used.
- Cover either application with an approved finish material (i.e. gypsum board).

FLOORS

(Over heated crawl spaces, garages, overhangs and cantilevers)

Determine the maximum R-Value of insulation that can be installed by measuring the depth of floor framing members. Select either R-38 (12"), R-38HD (10 $\frac{1}{4}$ "), R-30 (10"), R-30 (9 $\frac{1}{2}$ "), R-30HD (8 $\frac{1}{2}$ "), R-22 (6 $\frac{1}{2}$ "), R-19 (6 $\frac{1}{4}$ "), or R-13 (3 $\frac{1}{2}$ "). Determine the width of the insulation you'll need by measuring the typical distance between floor joists.

- Fit EcoBatt® kraft faced batts between floor framing joists with the facing toward the warm-in-winter side. Support with wire insulation supports, criss-crossed rust-proof wire, or chicken wire.
- Position insulation to protect water lines and HVAC duct systems keeping them between the insulation and the conditioned portion of the home.
- In crawl spaces, cover the ground with a 6 mil polyethylene film to serve as a barrier to ground moisture. Provide adequate ventilation to the outside.

CRAWL SPACE WALLS

- Friction fit slightly oversized sections of EcoBatt batts in each joist and over sill plates.
- Vertically drape sections of EcoBatt® unfaced batts down the crawl space foundation wall. Extend the insulation from the sill plate down the entire height of the wall, and continuing about 1' onto the crawl space floor.
- Secure the insulation by driving galvanized nails and washers through the insulation into the sill plate. You can also nail wood lathes into the sill plate every 18", compressing the insulation between the lathe and sill plate.
- Be sure to cover the ground with 6 mil polyethylene film to serve as a barrier to ground moisture. Ventilate crawl space to the outside during cooling season.

SOUND CONTROL

Wood Frame (Residential and Multi-family Construction)

Identify interior walls, floors, or ceilings which border areas that need to be isolated from other areas of the structure. Determine the width of insulation needed by measuring the typical distance between framing in each of these areas (usually 15" or 23").

- Install EcoBatt® 3 $\frac{1}{2}$ " (R-11) unfaced or kraft faced insulation between all framing members bordering this area. Friction-fit unfaced insulation or install kraft-faced batts. Faced batts may be stapled to the studs, if desired.
- Cover faced insulation with an approved finish material (i.e. gypsum board).

Sound Control

Identify interior walls or ceilings which border offices or common areas that need be isolated from other offices or common areas.

Partition Walls

- Friction fit one side of 3 $\frac{1}{2}$ " (R-11) unfaced EcoBatt® insulation into the metal C-channel and butt the other side against the metal stud. Install insulation to cover the full height of the wall.
- Cover with an approved finish material (i.e. gypsum board).

Acoustical Ceilings

- Position either 3 $\frac{1}{2}$ " or 6 $\frac{1}{4}$ " unfaced EcoBatt® batts over the top of acoustical lay-in ceiling panels or metal pan ceilings. EcoBatt® kraft faced batts should only be used in conjunction with fire-rated ceiling products.