

## OPTIMA® Fiber Glass Loose-Fill Insulation for Sidewall Reinsulation

### PRODUCT DESCRIPTION

**Basic Use:** OPTIMA® Fiber Glass Loose-Fill Insulation can be pneumatically installed into existing sidewalls and floored attics. OPTIMA can be used in residential and/or commercial construction as a thermal and acoustical insulation.

**Benefits:** This product is noncombustible, noncorrosive and odor free. In addition, OPTIMA won't settle, contains no chemicals to cause mildew and fungus growth, contains no formaldehyde, provides no sustenance for vermin, contains no asbestos, won't rot or decay and won't retain moisture.

**Composition and Materials:** OPTIMA is unbonded, white, virgin fiber glass insulation designed for pneumatic application.

**Limitations:** The product is designed for use at ambient temperatures in interior (weather protected) locations. Pneumatic equipment must have an effective shredding section, a uniform control feed system and adequate material/air capabilities. Product should be kept dry during shipping, storage and installation. Not to be used for open blow applications.

### INSTALLATION

Installation procedures and techniques must be as recommended by CertainTeed Corporation, using blowing machines approved for fiber glass insulation.

#### Preparatory Work:

- Check structural soundness of wall facings. Facings can be damaged by blowing pressure if they are weak or loosely attached.
- Check for symptoms of moisture problems such as blistering paint, mildew, staining, odor, etc., on interior or exterior wall surfaces. Any such problem should be brought to the owner's attention.
- Check for fire stops. If present, they will be at mid-height and holes must be drilled above and below these obstructions.
- Note and mark all areas that must not be drilled (location of wall ducts, vents, recessed cabinets, service panels, etc.).
- Make certain all wall openings through which insulation could enter the house are sealed.

**Method(s):** Two basic methods are recommended for insulating sidewalls with OPTIMA: the directional nozzle method and the insert tube method.

#### Method 1 – Directional Nozzle:

- Drill two 1½" or 1¾" diameter holes into each stud cavity, one hole 3' up from the base of the wall and one hole 2' down from the top plates. Don't blow more than 3' down or 2' up from any hole.
- Drill holes into cavities below windows and into cavities above windows when there is no solid header.
- Use 200' of internally corrugated hose stepped down in diameter to a 1¼" to 1½" I.D. nozzle (50' of 3" to 100' of 2½" to 50' of 2" hose). (The nozzle can be fabricated from a metal electrical conduit elbow.)



<b>Product Name</b>	OPTIMA® Fiber Glass Loose-Fill Insulation
<b>Manufacturer</b>	CertainTeed Corporation
<b>Address</b>	20 Moores Road Malvern, PA 19355
<b>Phone</b>	800-233-8990
<b>Website</b>	<a href="http://www.certainteed.com/insulation">www.certainteed.com/insulation</a>

### TECHNICAL DATA

#### Applicable Standards

- Model Building Codes – ICC
- California Quality Standards
- ASTM C764, Type I
- Material Standards:
  - ASTM C764, Mineral Fiber Loose-Fill Thermal Insulation Type 1 – Pneumatic Application Properties:
    - Thermal resistance — ASTM C518 and C687
    - Critical radiant flux — ASTM E970
    - Combustion characteristics — ASTM E136
    - Water vapor sorption — ASTM C1104
    - Odor emission — ASTM C1304
    - Corrosiveness — ASTM C764
    - Fungi resistance — ASTM C1338
  - GREENGUARD GOLD

#### Fire Resistance

- Fire Hazard Classification:
  - ASTM E84
  - Max Flame Index: 25
  - Max Smoke Developed Index: 50
- Noncombustible:
  - ASTM E136 / Meets requirements

#### Thermal / Acoustical Properties

- Thermal Performance:
  - Based on 31 lb. bag weight, the following thermal performance is achieved, at a design density of 2.3 PCF, at the weights and coverages specified in the table on the other side. To compensate for framing, the net coverage per bag should be increased by 14% when framing is 16" O.C. or 11% when framing is 24" O.C. for opaque insulatable wall areas.
- Thermal Resistance:
  - In accordance with ASTM C687, the stated R-Values in the table are achieved at weights and coverages specified when insulation is installed with pneumatic equipment in accordance with CertainTeed recommendations.
- Sound Transmission Loss Ratings:
  - The same STC ratings obtained with fiber glass blanket insulation can be estimated for OPTIMA. Refer to CertainTeed's Sound Control Brochure (30-29-121).

#### Quality Assurance

CertainTeed's commitment to quality and environmental management has ensured the registration of the Athens, Chowchilla and Kansas City plants to ISO 9001:2008 and ISO 14001:2004 standards.

- Insert nozzle in lower hole first and blow downward, filling cavity up to the level of the hole. Insert nozzle in upper hole and blow downward and then upward until the cavity is completely filled.

In both methods, air pressure must be reduced substantially compared to the open blow technique to ensure that no damage is done to the sidewall. The blowing machine should be equipped with an air relief valve.

The actual setting of the equipment will vary depending on the type of hose, equipment limitations and job conditions. When properly filled, wall cavities should have a nominal density of 2.3 lbs. per cubic foot.

**Method 2 – Insert Tube:**

- Drill a single 2" hole in each stud cavity at mid-height.
- Drill holes into cavities below windows and into cavities above windows when there is no solid header.
- Use 200' of internally corrugated hose (50' of 3" to 100' of 2½" to 50' of 2" hose). The 2" hose is connected to a reducer and then to a 4' length of 1¼" to 1½" I.D. semi-rigid insert tube.
- Push the insert tube downward through the access hole until the length of tube remaining indicates that the end of the tube is a few inches from the bottom of the cavity.
- Begin blowing OPTIMA, gradually withdrawing the insert tube when an increase in back pressure is felt in the tube. Fill the cavity to the level of the hole.

- Push the insert tube upward through the access hole and continue blowing and withdrawing the tube as above.

**Alternate:** Drill a single hole approximately 6" below the top plates in each cavity and use an 8' length of 1¼" to 1½" I.D. insert tube.

**AVAILABILITY AND COST**

Manufactured and sold throughout the United States. For availability and cost contact CertainTeed at 800-233-8990.

**WARRANTY**

Refer to CertainTeed's Limited Lifetime Insulation Warranty for Blowing Insulation (30-21-1344).

**MAINTENANCE**

No maintenance required.

**TECHNICAL SERVICES**

Technical assistance can be obtained either from the local CertainTeed sales representative, or by calling CertainTeed Sales Support Group at 800-233-8990.

OPTIMA Dense Pack Coverage Chart						31 Lb. Bag
Construction Type	Cavity Depth	R-Value	Density - Installed (minimum)	Coverage - Net (maximum)	Weight per Unit Area (minimum)	Packages per 1,000 sq. ft. (minimum)
2 x 4	3.5	15	2.3	46.2	0.671	21.6
2 x 4	4	18	2.3	40.4	0.767	24.7
2 x 6	5.5	25	2.3	29.4	1.054	34.0
2 x 8	7.25	32	2.3	22.3	1.390	44.8
2 x 10	9.25	41	2.3	17.5	1.773	57.2

For dense packing walls to an air permeance of 3.5 cfm/ft<sup>2</sup> at 50 pascals pressure differential, use a minimum density of at least 2.3 pcf. For more information please see our Dense Packing Sell Sheet (30-24-325).



**CertainTeed Corporation**

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