



INNOVATIONS FOR LIVING®

PROPINK Complete™ Blown-in Insulation System

Installation Guidelines

The PROPINK Complete™ Blown-in Insulation System includes: PROPINK® L77 Loosefill Insulation, PROPINK Complete™ non-woven fabric, INSPECT-R® Density Gauge, application instructions and technical support.

Attention

These instructions are only a summary guideline for installing PROPINK Complete™ Blown-in Insulation System. Install only after appropriate training. Always use appropriate safety and personal protective equipment when installing this product, including long-sleeved shirt, long pants, gloves, safety glasses, and properly fitted and approved disposable dust mask. Refer to the product package and Product Data Sheet for additional safety information.

The process of blowing insulation into enclosed cavities is best accomplished with two people. The process can be broken down into two steps: 1) Installing fabric and 2) Installing wool.

Installing Fabric

Only use Owens Corning™ PROPINK Complete™ Fabric for this application.

For easy handling and shipping the fabric is folded and rolled.

Staples should be placed 1" to 2" apart. A variable rate fully automatic pneumatic staple gun is recommended.

Before installing the fabric, be sure to clean wall cavities. Use caulk or foam to seal all penetrations into the wall cavities. For cavities that are smaller than 2" width, insulate with Owens Corning™ FIBERGLAS™ Batts.

Wall Installation:

Step 1 Choose a wall section. Unroll the fabric along the wall section and cut to the desired length with a razor knife or scissors.

Step 2 Staple the fabric to the lower top plate at one corner of the wall.

Step 3 Staple across the entire top plate.

Step 4 Move to the middle of the wall at the floor level, pull the material tight and staple to the bottom plate.

Step 5 Work your way from the middle of the wall toward the corners, stretching the fabric and stapling to the bottom plate as you go.

Step 6 Finish by stapling along each stud and around any window or door openings.

If the wall section is taller than the width of the fabric you will need to make up the distance with additional fabric. The additional fabric will need to overlap the previously installed sheet by at least 2". The overlap can be taped to prevent wool from escaping. Repeat these steps for the remainder of the walls in the building.

Ceiling Installation:

Before installing the fabric, insure proper ventilation by using Owens Corning™ raft-R-mate® Ventilation Baffles. Baffles should extend all the way from the eave to the ridge, and be installed with no space between them. The area between the vent and the top plate should be blocked off with FIBERGLAS™ Batts to prevent the loosefill from entering the soffit. See Figure 1.

Step 1 Start by unrolling the fabric on the floor perpendicular to the ceiling rafters. Leave some excess before cutting.

Figure 1

	Soffit and rafter cavity before being prepped for insulation
	Baffles should be installed from soffit to ridge. Butt the baffles tight to each other
	Install FIBERGLAS™ Batts between the baffle and top plate to prevent the loose-fill from entering the soffit



INNOVATIONS FOR LIVING®

PROPINK Complete™ Blown-in Insulation System

Installation Guidelines

Step 2 Begin by tacking the fabric in one corner of the ceiling starting at the ridge.

Step 3 Move to the opposite end of the ridge and pull the fabric tight and staple.

Step 4 Move to the middle of the ceiling, pull the fabric tight and attach the fabric to a rafter at the edge of the fabric furthest from the ridge.

Step 5 Attach the fabric at the wall edges, again pulling it tight before stapling.

Step 6 Finish by stapling along the ridge, each rafter and around any ceiling penetrations.

Caution: If recessed lights are present be sure they are "IC Rated", rated for insulation contact, before blowing insulation around them. If they are not "IC rated" you will need to block around the light to keep the loosefill insulation a minimum of 3" away from the light. FIBERGLAS™ Insulation Batts can be used as blocking.

If more than one layer of fabric is needed the second layer of fabric should overlap the first by at least 2".

Fire Rated Wall Assemblies

When installing PROPINK® L77 Loosefill Insulation in fire rated assemblies like UL U378 close attention needs to be given to any narrow cavities and corners to insure a density of 2.6 pcf is reached. 2.6 pcf is the minimum required density for a fire rated wall assembly using PROPINK® L77 Loosefill Insulation.

Installing Loosefill Insulation

Only use Owens Corning™ PROPINK® L77 Loosefill Insulation for this application. PROPINK® L77 Loosefill Insulation comes in individual 33 lb. bags.

Machine Settings: For most commercial blowing wool machines the gate will be set at half open. The air bypass will be one quarter open. Machine RPM should be between 1,800 and 2,300 depending on the type of blowing machine. The blow rate should be in the range of 9 lbs/ min. of wool. These settings should be adjusted as needed to get the correct density of insulation.

Hose Setup: A 3" hose is recommended to attach to the blowing machine. At the application end of the 3" hose, a 3" to 2¼" reducer should be attached. After the reducer, 15' of 2¼" hose should be attached. Finally, a 26" section of thin walled 2¼" pipe should be attached with the end cut off at a 60° angle to form a nozzle. The nozzle is used to penetrate into the fabric and direct the material flow.

Walls:

Step 1 With the fabric in place, choose a stud cavity to begin. Insert the nozzle through the fabric halfway up the wall. Multiple insertion points may be needed for wall cavities above 8'. Point the nozzle down and turn on the blowing machine. Keep the end of the nozzle about 1' from the wool level, withdrawing the pipe as the level comes up. Move the nozzle from side to side to evenly distribute the wool. When the wool is about 6" from the

insertion point, turn the nozzle upward to fill the upper portion of the cavity.

Step 2 When most of the cavity is full, point the nozzle toward the wall and fill in around the insertion area. When the wall is full, turn off the blowing machine and remove the nozzle.

Step 3 Inspect the cavity for unfilled areas. These areas are lighter colored areas behind the fabric. Insert the nozzle in this area and turn on the blowing machine until the areas are full. Be sure that the cavity is of uniform color and shape before moving to the next cavity.

Step 4 After all cavities are filled cut the fabric away from doors, windows and electrical boxes. Inspect studs for any protruding staples and hammer in if necessary. Prior to brooming, check density and R-value with INSPECT-R® Density Gauge. Use a broom to smooth out any bumps in the fabric. Sweep up any residual wool from the floor.

Ceilings:

Step 1 With the fabric in place, choose a ceiling cavity to begin. Insert the nozzle into the fabric about 5' up from the wall. Point the nozzle down toward the wall and turn on the blowing wool machine. Keep the end of the nozzle about 1' from the wool level withdrawing the nozzle as the cavity fills. Move the nozzle from side to side and from top to bottom to evenly distribute





INNOVATIONS FOR LIVING®

PROPINK Complete™ Blown-in Insulation System

Installation Guidelines

the FIBERGLAS™. Avoid pointing the nozzle directly toward the baffles. When the wool is even with the insertion point, turn off the machine.

Step 2 Move approximately 5' to 6' up the ceiling and make another insertion point. Insert the nozzle and blow down toward the wall. Using the same method fill the cavity up to this insertion point. Repeat these steps until you are about 4' from the ridge.

Step 3 When the wool is about 6" from the last insertion point turn the nozzle up toward the ridge to fill the upper portion of the cavity. When most of the cavity is full then point the nozzle toward the roof and fill in around the insertion area. When the cavity is full, turn off the blowing machine and remove the nozzle.

For cavities that are 2" and smaller in width cut away the fabric and fill with batt material.

After all cavities are filled, cut fabric away from any fixtures in the ceiling. Inspect framing for any protruding staples and hammer in if necessary. Use a broom to smooth out any bumps in the fabric. Sweep up any residual wool from the floor.

When blowing cathedral ceilings, *raft-R-mate*® Ventilation Baffles should always be used. The baffles should be butted up to each other so the loosefill will not get into the air space behind. A batt should be used at the top by the ridge vent so the loosefill does not get into the air space. Care also needs to be taken not to aim the tube directly at the *raft-R-mate*® Ventilation Baffles but rather at 90° to the baffle.

Note: PROPINK Complete™ Fabric is not a vapor retarder. If required by code a separate vapor retarder will need to be installed over the fabric.

INSPECT-R® Density Gauge* Operating Instructions

Getting Started

To begin using the INSPECT-R® Density Gauge, you will need a compressor with at least a 6 gallon capacity and a 2 HP motor.

- Set the regulator on the compressor at 75 to 80 psig. Note: This setting will allow you to use other tools such as a pneumatic stapler without changing the setting.
- Attach a 3/8" pneumatic hose (with quick disconnect) to the compressor and to the INSPECT-R® Density Gauge.
- Start the compressor and allow it to increase to its rated pressure, which is typically 120 psig.

Calibration

Step 1 Set the INSPECT-R® Density Gauge to 10 psig.

Step 2 Hold the gauge in the vertical position so that you are looking at the large dial. If the needle reads zero, then proceed to the next step. If the needle is more than one bar from zero, use a small screwdriver to turn the screw on the face of the dial and adjust the needle to zero. Turn on the air switch. The needle should still read zero.

Step 3 If the air switch is on and the needle does not read zero, inspect the air passages on the back of the gauge for any obstructions. Repeat procedure after repairs.



Figure 1

Measurement and Conversion to R-Value

Step 1 You will need at least one filled wall cavity with stud spacings between 12" and 24" to measure density. Measurements should not be taken at the nozzle entry points, where there is an obvious hole in the insulation, or closer than 2" from any framing feature.

Step 2 Grip the handles on both sides of the INSPECT-R® Density Gauge and press the device against the studs, centered between them (Figure 1).

Step 3 Open the air switch and read the gauge. Note the reading. Move sensor to another location within the cavity space. Repeat this step five more times to get a total of six readings.

Step 4 Average the six readings from the INSPECT-R® Density Gauge. On the conversion chart, find the highest WC minimum reading that matches the average without going over. Read across the chart to see the density and R-Value achieved.

Step 5 Enter the readings on the Wall Card (see Owens Corning publication number 58454) upon completion of the project. This Wall Card certifies that the house has achieved a given R-value.



INNOVATIONS FOR LIVING®

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Installation Guidelines

*This device has been designed for use with the Owens Corning™ PROPINK Complete™ Blown-in Wall System exclusively and cannot be used with other fabrics or insulation systems.

Example:

The following pressure readings in W.C. are noted from the INSPECT-R® Density Gauge measured at 6 points on a 2x4 wall: .55, .66, .70, .65, .68, .72. Added together they equal 3.46. Divide by 6 to get an average of 0.66. Find the highest W.C. reading on Table I that does not exceed 0.66 which would be 0.65. Reading across the chart, the minimum density would be 1.48 pcf and corresponds to an R-value of 15.

Table I
2x4 Walls

To Reach an R-Value of	You need a minimum average Inspect-R® Density Gauge reading (W.C.) of	With a Density (PCF) of
14	0.55	1.38
15	0.65	1.48
16	1.50	2.24

2x6 Walls

To reach an R-Value of	You need a minimum average Inspect-R® Density Gauge reading (W.C.) of	With a Density (PCF) of
23	0.60	1.43
24	1.00	1.81

Density Calculations without INSPECT-R® Density Gauge:

At the beginning of the installation process it is recommended that the density of wool in the cavity be determined in order to confirm R-value. If you have the Owens Corning™ INSPECT-R® Density Gauge you can skip the following steps.

- Allow the blowing machine to empty out.
- Start with an uninstalled wall. Add one bag of PROPINK® L77 Loosefill Insulation to the blowing machine.
- Estimate the total cavity fill volume.
- Blow material into cavities until the blowing machine is empty.
- Count the number of cavities filled and multiply by the cavity fill volume.
- Divide the installed product weight by the total cavity fill volume to calculate installed density.

Sample Calculation

Density

Cavity Volume:

Width – 14½"

Depth – 3½"

Height – 92⁵/₈"

Cavity Volume:

$$(14.5 \times 3.5 \times 92\frac{5}{8}) / (1,728 \text{ in}^3/\text{ft}^3) = 2.72 \text{ ft}^3$$

Number of cavities filled with one bag = 8.1 cavities

Total Cavity Volume:

$$8.1 \times 2.72 \text{ ft}^3 = 22.03 \text{ ft}^3$$

Bag weight: 33 lbs.

Cavity Density:

$$33 \text{ lbs.} / 22.03 \text{ ft}^3 = 1.50 \text{ lbs./ft}^3$$

Resulting R-value = R-15

Alternate Method:

An alternative to the above method is to remove the insulation from a filled cavity.

- Select a cavity of the wall to empty, and put the insulation in a bag or box.
- Measure the cavity and calculate the volume as in previous example.
- Weigh the material on a scale that displays weight in tenths of a pound.
- Divide the weight by the volume. This is the density of the material.
- Get the R-value from the table.

Disclaimer of Liability

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