PROPINK® LOOSEFILL INSULATION

Coverage Guidelines and Troubleshooting

Machine Setting Information

Attic coverage information for ProPink® L77 loosefill insulation was determined using a Volu-Matic SE insulation blowing machine. The machine was set up in third gear, a 12-inch gate opening, 1.4 psi air bleed pressure, blowing the wool out with a 10-foot arc. The hose was set up with 100 feet of 4-inch-diameter. Mark 2 hose reduced to 50-foot section of 3.5-inch diameter.

There are several manufacturers of various designs of insulation blowing machines. Machine configurations (manufacturers and models) are highly varied, yet they share common principles which this guide will highlight to help maximize coverage and feed rate.

What Is Coverage?

The common expression for coverage is "square feet per bag" installed at the specified thickness (R-value). Products are designed to achieve a maximum square foot coverage per bag at each R-value. For example, at R-30, ProPink® L77 is designed to achieve no more than 77 square feet per bag at 10.5-inch depth. In other words, if you achieve any more coverage than 77 square feet at 10.5-inch depth, you will have less than R-30 insulating power. If you achieve less square feet per bag, you will likely achieve higher than R-30 insulating power.

WHAT AFFECTS COVERAGE?

Product Feed Rate to Air Flow Ratio

The product feed rate (measured in lbs (or bags) of material per minute) relative to the air flow has a strong effect on coverage and blow rate. It is machine specific and affected by the condition of the rotary valve seals, the hose condition, length and diameter, ambient conditions, and other factors described below.

As a principle, there is a balance between feed rate and material coverage. The techniques listed in the table below may achieve a higher feed rate, but, if too aggressive, may damage the "opening-up" or fiber recovery of the loosefill fibers and reduce coverage. This will result in requiring more bags of material to achieve specified thickness.

	EFFECT ON FEED RATE (LBS/MIN)	EFFECT ON COVERAGE (SQ FT PER BAG)	RECOMMENDED "BALANCED SETTING"
INCREASED FEEDER SPEED (GEAR SETTING)	Increased	Decreased	3rd gear recommended, 4th gear can achieve coverage depending on machine and ambient conditions
LARGER GATE OPENING	Increased	Decreased	Gate ½ to ¾ open
NO. OF BAGS IN HOPPER	Increased	Decreased	≤ 2 bags in at a time
HIGHER BLOWER SPEED (BYPASS VALVE)	Increased	Decreased	Adjust to achieve minimum of 10' to 14' material arc.

Rotary Valve Seals

Routinely inspect the rotary valves for material or dust blowing up out of the hopper, and replace as needed (or per manufacturer recommendations). To do this, run the machine until the rotating agitators are exposed and watch for material blowback within the hopper. Blowback from worn-out seals may reduce feed rate as well as ability to achieve desired material arc from the hose.

Blow Hose

Hose condition can have a significant influence on material coverage.

- Aging — Well-worn hoses reduce coverage due to the rounding of internal ridges.
- Holes — Air lost through holes reduces coverage and blow rate.
- Hose length — Coverage and blow rate decrease with lengths greater than 150 feet.
- Diameter — Material feed rate and coverage both increase with larger diameter hoses; installers may opt for a smaller diameter hose (recommend 3.5-inch diameter) for the last 50 feet or so in the attic as the smaller diameter makes the hose more manageable.

Application Technique

Optimum coverage is achieved when the loosefill insulation exits the installation hose, unobstructed, through a horizontal trajectory. Loosefill impacting surfaces at a high velocity may reduce coverage.

- Excessive flow-directing with the hand compacts the product and reduces coverage.
- Dense-packing material into the eave areas reduces coverage.
- Downward angle of the hose compacts the product and reduces coverage.

Static

Static may have bad effects on coverage. ProPink® loosefill contains a highly effective proprietary anti-stat, but like all anti-stats, it requires moisture for activations. If there is insufficient moisture in the air (less than 30% humidity), additional moisture needs to be added to the material in the hopper. The following are recommendations to provide this moisture, but only use as much supplemental moisture as needed to eliminate static, as too much moisture also reduces coverage by weighing down the fibers.

- Add ½ cup (4 oz.) of a 50:50 mixture of water and fabric softener to the bottom of the hopper near the feeder. The hose will get a light coating of fabric softener, which will knock down the static for an extended period of time.
- DO NOT ADD SNOW. Snow will make the product too dense and will reduce coverage, as well as potentially introducing organic matter into the product.

Ambient Conditions

The temperature and humidity levels during install need to be considered during install. Before beginning an install, check the temperature and humidity levels to see if any of the following adjustments need to be made to ensure optimum productivity.

- Low humidity (less than 30%) — Follow static management guidelines from above.
- Temperature can impact the rigidity of your rotary valve seals. When it is cold, seals may become hard and not seal as well. Reduced air flow through the hose will not properly condition the product, potentially resulting in lower coverage until the machine warms up.

WHAT TO DO IF YOU NOTICE A COVERAGE ISSUE

During installation, the installer should check with the machine loader when they reach the halfway point of the install job to see if half the bags have been used. The blow crew should also check if bag counts match the job sheet estimate at the end of the job. If the blow crew is missing bag counts (either over or under), consider monitoring blow technique and making machine adjustments. Here are the five biggest factors to consider:

1. Where is the feed gate set? If you are over on bag counts, close the gate until coverage is achieved. If you are under on bag counts, slightly open gate.
2. Is the hose in good condition? Do you see any holes or cracks? Have the ridges been worn smooth? If yes, replace.
3. Is the hose length 200 feet or less? If yes, no change. If no, consider adjusting hose length. Recommended hose length for optimal coverage is 150 feet.
4. Are you experiencing static? Follow recommended fabric softener and water mix.
5. Are you getting a 10-to-12-foot plume of material coming from the end of the hose to where it falls on the floor of the attic? If not, check air bypass valve to ensure it is closed so you are getting maximum air flow. Still not achieving plume? Reduce the feed rate of the product by closing the gate.

If you are still achieving coverage, pull two bags aside to send back to Owens Corning. Contact your ASM to arrange return of product to producing plant. Capture pictures of material and time stamps on bags to send to ASM to help with product assessment.

OWENS CORNING INSULATING SYSTEMS, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OH 43659 USA

1-800-GET-PINK® | www.owenscorning.com