



NATIONAL FIBER CEL-PAK INSULATION

Professional Cellulose for Cellulose Professionals

Directions for Installing Dense Pack Cellulose behind Insulweb Netting

Equipment and Material Requirements

- *Hanes Insulweb* netting in 8 foot (**90105-8x375**) or 9 foot (**90105-9X375**) widths x 375 feet long
- Air compressor with a minimum of two air lines
- Pneumatic staple gun, Spotnails model BS8016AF, (**SBS8016AF**) or equivalent with ½ in. crown by 5/16 in. long staples (**S98005**)
- Installation wand, two-inch inside diameter by four-foot long aluminum (best, no static **Wall Tube**) or thin wall PVC 'central vac' tubing (ok, but some static **PVC-2"**) with end cut at a 45 degree angle
- Aluminum insulation roller (**Wall Roller**)
- A minimum of 50 feet of two-inch blowing hose (**2" Hose**) attached to the larger diameter blowing hose; total length not to exceed 150 feet.
- Optional: Fabric adhesive or slightly thinned *carpenters* glue and two inch paint roller

Preparation

Maintain minimum code clearance to combustibles for non-UL rated electrical systems (including non-IC rated recessed lights), knob and tube wiring, or combustion appliance flues, vents or chimneys.

Procedure for Installing Netting in Exterior and Interior Walls Assemblies

1. Measure the length of the wall and add two feet to the measurements.
2. Cut one piece of netting for each wall.
3. Tack an upper corner of the Insulweb in place and pull tight and tack the other side. Repeat this procedure for the two bottom corners, taking care to stretch the material tightly without wrinkles.
4. If stapling, set regulator to 80 psi on the compressor. Staple along the top first, than down the middle stud and than work outwards left and right. If the fabric is not taught, than inset (lip stitch) staple ¼ inch on one or both sides of framing. Repeat procedure for each stud until the wall is completed. Staples should be no more than 1.5 inches apart.
5. If gluing, tack Insulweb to framing with staples and apply glue with a two-inch roller through Insulweb to each wall stud and plate. Let glue dry at least two hours before insulating.
6. After two rooms are completely netted, one person can begin blowing material in the first netted room (assuming glue, if used, is dry).
7. For sound attenuation, it is easiest to have drywall already installed on one side, netting the other side with Insulweb. Insulweb can be installed on both sides of the wall if, after insulating, a sheet of plywood bracing is temporarily held in place while the Insulweb is rolled flat on the opposite side of the wall.

Procedure for Installing Cellulose Insulation in Netted Wall Assemblies

1. Using a machine capable of steady blower pressures of 2.9 psi or 80 wci, set the air control to maximum and open the feed gate to approximately 50% to achieve an installed density of 3.5 lbs/cuft in a 2 x 6 cavity, and close feed gate more to increase the density in larger cavities.
2. Poke the end of the two-inch installation wand four feet up from the bottom through the center of the Insulweb. Insert wand to the bottom corner of the cavity and pull it back a couple of inches. Begin blowing the first cavity. Retract the wand when the material stops flowing through the hose. Dense pack the wall upwards about two feet, then pull the wand upward another foot and plunge the tube downwards into the opposite corner.
3. Once the hose end reaches the opening in the netting, reinsert the wand to the top corner of the cavity and repeat as above until the cavity is completely filled, paying special attention to the top two corners. The netting will tighten and bulge slightly as the hose is withdrawn. Using the coverage chart below, or National Fiber's Expanded Bag Coverage Chart, confirm bag count per square foot of wall area.

R-Value	Framing Size	Cavity Depth (Inches)	Coverage per Bag (Net SqFt)	Installed Density (lbs/cuft)
13	2 x 4	3.5	24.6	3.5
20	2 x 6	5.5	15.2	3.6
27	2 x 8	7.5	10.9	3.7
35	2 x 10	9.5	8.3	3.8
42	2 x 12	11.5	6.7	3.9
49	2 x 14	13.5	5.6	4.0
57	2 x 16	15.5	4.7	4.1

4. After blowing, check the density by pressing on the Insulweb with your hand in a number of spots. A properly filled cavity will have the feel of a firm mattress at 3.5 lbs/cuft and slightly hard to the touch at 4.0 lbs/cuft. If there are any voids, or if the density feels light in any area, the wand will need to be reinserted and more material installed to achieve a uniform density.
5. Cavities will need to be rolled along the middle of each assembly with the insulation roller, so that the bulging does not interfere with the installation of the drywall.
6. Cross bracing will create two separate cavities. Blow each cavity with separate entry holes.
7. In overhead applications, the Insulweb should not be left unsupported due to the potential for sagging of the fabric over time. It should be strapped perpendicular to the framing every 16" o/c before dense packing or rolled flat and covered with drywall after insulating.

For further information, please contact our Technical Manager, Bill Hulstrunk at technical@nationalfiber.com

Note: Bracketed, bold, italicized items are the National Fiber part numbers used for ordering.

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