

Dense Packing with **OPTIMA**®

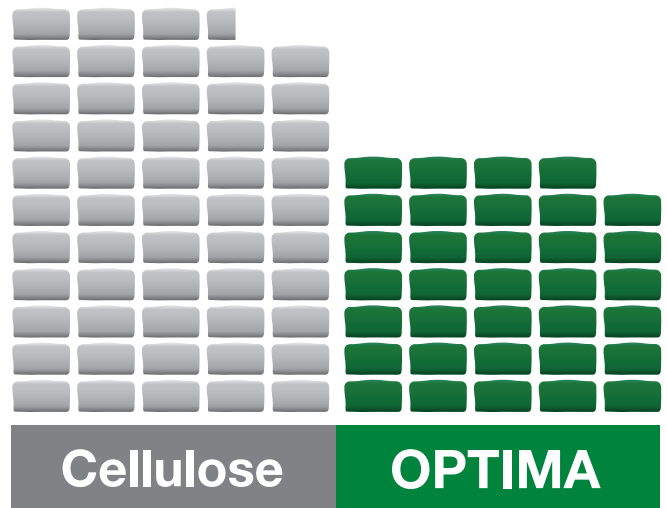
Historically, cellulose has been promoted as the only choice for dense pack applications. However, CertainTeed OPTIMA® loose-fill fiber glass insulation provides the same reductions in air permeance as cellulose while delivering a number of other significant benefits.

OPTIMA offers many additional benefits when compared to cellulose

- Fewer packages needed – less labor, handling and jobsite trash
- Higher R-value per inch (R-25 in 2 x 6); higher wall R-values
- EPA and BPI approved for weatherization programs and retrofit applications
- GREENGUARD® Gold certified for indoor air quality
- High recycled glass content – exceeds EPA's Recovered Materials Advisory Notice
- Won't absorb moisture or support mold growth
- Naturally noncombustible; no fire-retardant chemicals added
- Doesn't settle
- Less dust
- Faster flowing – helps save time on the job



36% *FEWER BAGS at a*
19% *increased R-value**



OPTIMA = R-25 in 2 x 6 wall @ 2.3 lbs/ft³

Cellulose = R-21 in 2 x 6 wall @ 3.5 lbs/ft³

*Based on a 30 lb bag of cellulose

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Dense Packing Installation Guidelines for OPTIMA®

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/ft² at 50 pascals pressure differential, use a minimum density of at least 2.3 PCF.

Blowing Machine: Required – fiber agitation and conditioning with air pressure control

1. Machine speed – per manufacturer's recommendation
2. Slide gate – start with 1/3 to 1/2 open
3. Air pressure – 2.0 to 2.4 psi (55" to 66" of H₂O) (machine back pressure end of insert tube)
4. Transmission (if applicable) – 2nd gear

Blowing Hose:

1. Internally corrugated hose required (except for wall insert tube)
2. Smooth transition reducers
3. 10' cavity insert tube:
 - a. 1 1/4" ID w/ 1/8" wall thickness clear vinyl/plastic tube
 - b. 1 1/2" ID w/ 1/8" wall thickness for larger cavities (2 x 6 or larger)
 - c. 1 1/2" or 2" blow hose inserted into floor/ceiling cavities or large sidewall cavities from the attic

Blowing Hose Assembly*									
Machine Outlet Dia.	1st Section	Reduce to	2nd Section	Reduce to	3rd Section	Reduce to	4th Section	Reduce to	5th Section
4"	4" x 0 - 25'	3 1/2"	3 1/2" x 50'	Follow 3 1/2" Machine Outlet Set Up					
3 1/2"	3 1/2" x 0 - 25'	3"	3" x 50'	Follow 3" Machine Outlet Set Up					
3"	3" x 50' min.	2 1/2"	2 1/2" x 50'	2"	2" x 50'	1 1/2"	1 1/2" x 10 - 25'	Insert Tube	10'
2 1/2"	2 1/2" x 100' min.	2"	2" x 50'	1 1/2"	1 1/2" x 10 - 25'	Insert Tube	10'		

* Hose length combination to be a minimum of 150'

Techniques:

1. Preferred – 1 hole with tube inserted filling both upwards and downwards until the cavity is filled
2. Alternative – 2 holes with tube inserted filling both upwards and downwards at each hole location until cavity is filled

NOTE: See machine manufacturer recommendations for hose length. For mid-size to large machines, 150' minimum is typical. Please ensure you are in compliance with applicable OSHA and EPA regulations on all job sites.



CertainTeed Corporation

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