



## Inner-Safe™ Three-Step Installation Process

### PROPER INSTALLATION OF INNER-SAFE BATT INSULATION

Adding Inner-Safe batt insulation to interstitial spaces is a quick, easy process. This document will describe the minimal materials and equipment needed, and the three steps necessary to properly install Inner-Safe. Please review this guide in full before starting installation. If you have questions, call Knauf Insulation Technical Support at 1-800-825-4434, ext. 8727.

### DEFINING NFPA 13

#### **NFPA 13, SECTION 8.15.1.2.7:**

Non-Combustibles filled with non-combustible insulation shall not require sprinkler protection.

#### **NFPA 13, SECTION 8.15.1.2.7.1:**

A maximum 2 in. air gap at the top of the space shall be permitted.



### RECOMMENDED MATERIALS AND EQUIPMENT

- Inner-Safe insulation
- Ladder/Scaffold/Stilts
- Portable lighting, as needed
- Head covering or hard hat
- Safety goggles
- Dust mask
- Work gloves
- Measuring tape
- Insulation knife

The language above, excerpted from NFPA 13 Standard, highlights revised sections that address requirements for the filling of interstitial spaces. Note that non-combustible insulation is now permitted—and that the code allows a maximum two-inch air gap at the top of the space. All trademarks are the property of their respective owners.

# Inner-Safe™ Non-Combustible Batt Insulation

Created to meet and exceed NFPA 13 Standard requirements (as specified in Section 8.15.1.2.7), Inner-Safe batt insulation offers a quicker, easier, more affordable alternative to sprinklers and blown-in insulation when filling interstitial space—and lessens the risk of fire spreading from unit to unit and floor to floor in multi-family construction projects.

Requires no specialized labor or equipment for installation

Reduces risk of expensive callbacks

Enhances thermal separation and noise reduction

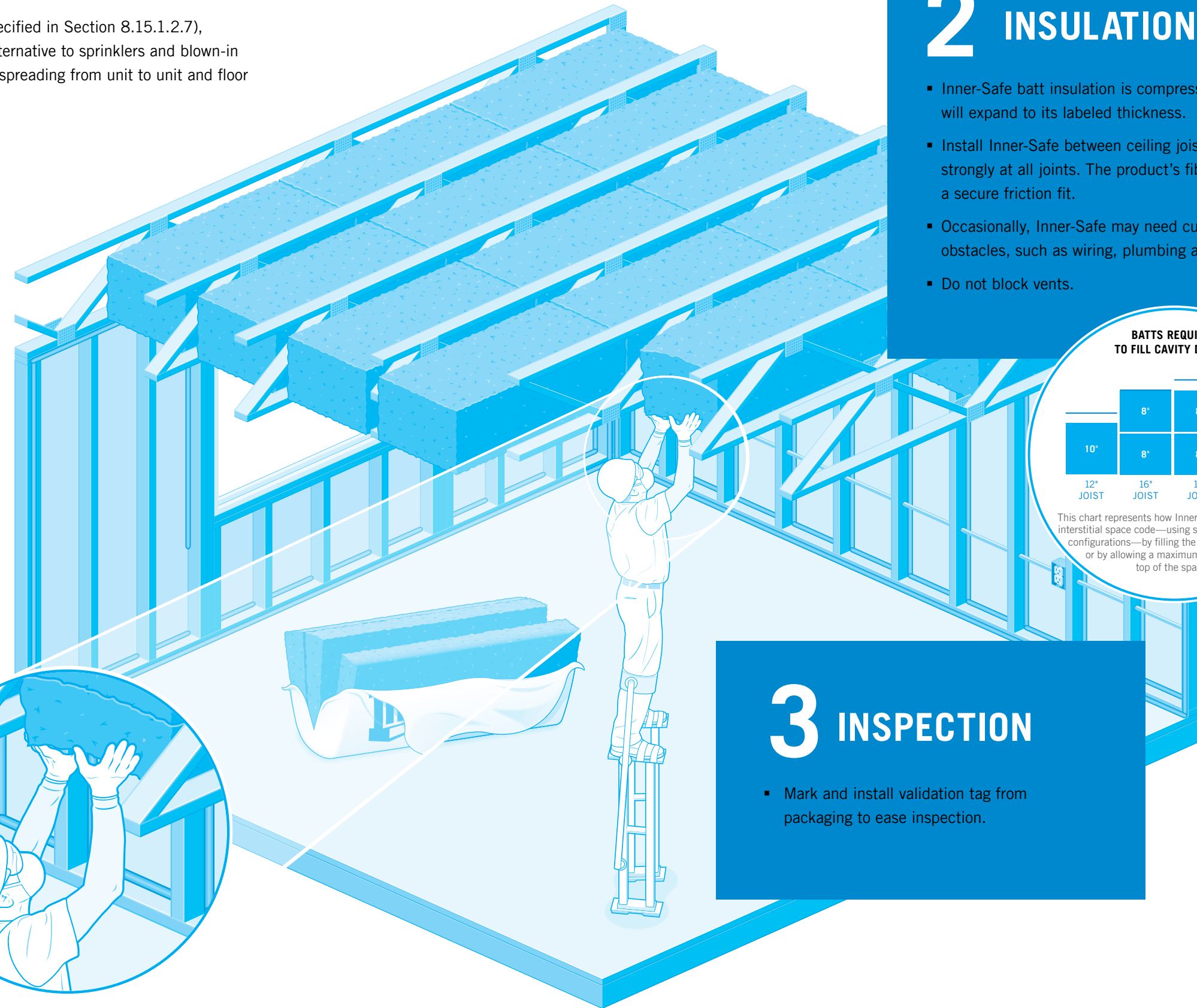
Satisfies a range of joist depths from 8" to 24"

Easy to estimate and allocate labor

Friction-fit into cavities—no fasteners or support needed

Same batt crews for walls and floor

Provides easier inspection, via depth indicator provided with packaging



## 2 INSULATION

- Inner-Safe batt insulation is compression-packed and will expand to its labeled thickness.
- Install Inner-Safe between ceiling joists, butting it strongly at all joints. The product's fiber design allows a secure friction fit.
- Occasionally, Inner-Safe may need cutting to fit around obstacles, such as wiring, plumbing and bracing.
- Do not block vents.

BATTS REQUIRED TO FILL CAVITY DEPTHS

			10"
	8"	8"	
10"	8"	8"	10"
12" JOIST	16" JOIST	18" JOIST	20" JOIST

This chart represents how Inner-Safe batts meet the interstitial space code—using single- or double-batt configurations—by filling the cavity completely, or by allowing a maximum 2" gap at the top of the space.

## 1 ESTIMATION

- The number of square feet of Inner-Safe is marked on its packaging. Calculate the total number of packages of Inner-Safe needed by dividing the total area of the interstitial space by the square footage in one package to find the total number of packages required. Round up to the nearest whole package.
- Determine the number and width of Inner-Safe batts required to fill the cavity.  
**IMPORTANT NOTE: NFPA 13, Section 8.15.1.2.7.1 permits a maximum air gap of TWO INCHES at the top of the interstitial space.**

## 3 INSPECTION

- Mark and install validation tag from packaging to ease inspection.

# HOW MUCH INNER-SAFE™ DO YOU NEED TO FILL YOUR INTERSTITIAL SPACE?

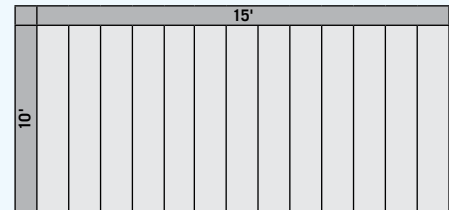
	Cavity Depth (in)	# of Layers	CAVITY LENGTH (FT) ESTIMATED SQ. FT.										
			10	12	14	16	18	20	22	24	26	28	30
<b>24" O.C. SPACING</b>	8	1	20	24	28	32	36	40	44	48	52	56	60
	10	1	20	24	28	32	36	40	44	48	52	56	60
	12	1	20	24	28	32	36	40	44	48	52	56	60
	14	1	20	24	28	32	36	40	44	48	52	56	60
	16	2	40	48	56	64	72	80	88	96	104	112	120
	18	2	40	48	56	64	72	80	88	96	104	112	120
	20	2	40	48	56	64	72	80	88	96	104	112	120
<b>19" O.C. SPACING</b>	8	1	16	19.2	22.4	25.6	28.8	32	35.2	38.4	41.6	44.8	48
	10	1	16	19.2	22.4	25.6	28.8	32	35.2	38.4	41.6	44.8	48
	12	1	16	19.2	22.4	25.6	28.8	32	35.2	38.4	41.6	44.8	48
	14	1	16	19.2	22.4	25.6	28.8	32	35.2	38.4	41.6	44.8	48
	16	2	32	38.4	44.8	51.2	57.6	64	70.4	76.8	83.2	89.6	96
	18	2	32	38.4	44.8	51.2	57.6	64	70.4	76.8	83.2	89.6	96
	20	2	32	38.4	44.8	51.2	57.6	64	70.4	76.8	83.2	89.6	96
	24	2	32	38.4	44.8	51.2	57.6	64	70.4	76.8	83.2	89.6	96

The chart above offers a quick, easy way to discover how much Inner-Safe product will be required to fill your project's interstitial space.

### FOLLOW THESE FOUR EASY STEPS:

1. Measure the joist depth and length of one cavity.
2. Determine the on-center spacing (either 16", 19" or 24") found in your project, then find the chart that corresponds.
3. On that chart, locate the depth of your cavity in the first column. The second column will show how many layers of Inner-Safe are necessary to fill the cavity's depth.
4. Now move right in the table to find the cavity length, and multiply that figure by the total number of cavities in the interstitial space.

**EXAMPLE:** A cavity with a depth of 12" will require one layer of Inner-Safe to fill. If the cavity length measures 10' then 20 sq. ft. of Inner-Safe will be required to fill one cavity. If there are 15 cavities to be filled, multiplying 20 sq. ft. x 15 equals 300 sq. ft.—the total amount of Inner-Safe needed to fill the entire interstitial space.  
**Sq. Ft. of Cavity Length x Number of Cavities = Total Sq. Ft. of Inner-Safe needed**



**KNAUF INSULATION, INC.**

One Knauf Drive  
Shelbyville, IN 46176

**Technical Support**

(317) 398-4434 ext. 8727

[info.us@knaufinsulation.com](mailto:info.us@knaufinsulation.com)

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See patent [www.knaufnorthamerica.com/patents](http://www.knaufnorthamerica.com/patents)

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