Quality Technical Bulletin

Sound Attenuation & Insulation—Missed Items

Issue 48 | 098116 | 05-08-2018

When insulation is compressed, it looses the percentage of R-value in direct correlation to the compression ratio

R-Value	Stud Size	Actual R-Value
R-19	6" Stud	R-19
R-19	3 5/8" Stud	R-14
R-13	3 5/8" Stud	R-13
R-13	2 1/2" Stud	R-7

NOTE: this is not the ASHRE effective R-value, which is less based on the stud size and frequency.

R-13...3 5/8"@16" o.c. = R-4.7
R-19……6"@16"o.c. = R=7

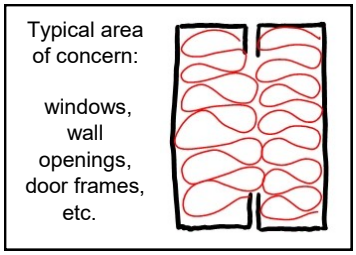
R-13...2 1/2"@16" o.c. = R-2.5
R-19… 3 5/8"@16"o.c. = R=5

Make sure that the hard to get to areas are filled prior to the final install of the studs or metal backing.

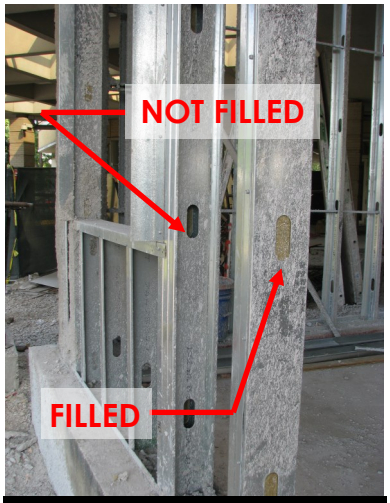
We need to verify all walls for constructability prior to stud installation. We also need to make sure we discuss these issues with the insulation and stud foreman.

When installing cold-formed metal framing on the exterior of the building or light-gauge framing on the interior, we often are required to install batt insulation or sound attenuation blankets. Sound issues and cold pockets are becoming a major legal issue with contractors today. We need to pay special attention to the areas where we will not be able to access after the installation of these framing members, such as the interior of the double studs, header boxes or at door frames. We just need to plan ahead and identify these areas with the appropriate subcontractor as soon as possible.

Corey Zussman, AIA, NCARB - Director of Quality Management



- ALWAYS REVIEW INSTALLATION PROCEDURES WITH THE SUB at the ***Pre-Installation Meeting***. Identify the issue with the sub-contractor at these meetings.
- If the metal framing will be exposed to the exterior during construction, have the possibility of getting moisture inside or on the metal framing, we need to protect the insulation / sound attenuation with Tyvek© tape or similar over the steel framing holes.
- Review and add notes to install insulation / sound attenuation on the scope sheet and shop drawings prior to installation in these areas. ***Add this bulletin to clearly identify the issue***.
- Other typical areas of concern are behind junction boxes, conduit, plumbing, etc.
- When sound attenuation blankets are not detailed to be installed up to the deck above, it is recommended to install a minimum 12" above the dropped ceiling and 12" horizontally on either side of the wall on the acoustical ceiling tile (*discuss with architect and verify with ceiling tile Mfr*).
- Discuss the detail with the cold-form metal framing or light-gauge framing foreman.
- Verify all installations of sound attenuation / insulation prior to installation of drywall.
- Always verify sound attenuation material matches what is specified on the drawings and what has been reviewed by the architect prior to ANY install.
- Sound attenuation and batt insulation should NEVER be stuffed in place. Doing so will render the products less useful. The product is designed to be fit in place.
- Review installation of sound / insulation with plumbing and electrical subcontractors to make sure they **do not** just remove or stuff back into place.



Framing columns were installed with insulation, however, the double stud at the window was not. Also, the holes need to be covered for exterior exposure.

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