How much sound deadening can I expect to get from using resilient channels?

There are many factors that affect how much sound does or does not pass from one room to the next, so it’s not possible to say that using resilient channels in a variety of assemblies is going to yield the same result every time, regardless of the composition of the assembly.

There are tests on a couple of assemblies that are identical except for the resilient channels, and these tests could offer a comparison, at least for one combination of components. A particular wall assembly composed of steel studs and gypsum wallboard, without the channels, rated a Sound Transmission Class of 48. The same assembly with resilient channels on one side rated an STC of 52. And most interesting to me, the same assembly with resilient channels on both sides also rated an STC of 52.

So, in at least one instance, it can be shown that the resilient channels offer an improvement of four STC points, whether on one or both sides of the wall assembly. (A cursory look through the Gypsum Association’s GA-600-2000 Fire Resistance Design Manual, which includes available STC ratings, shows that the range from least to most STCs in the type of assembly described is about 40 to 59.)

Some manufacturers of resilient channels offer them in both 25- and 20-gauge thicknesses, but the heavier gauge is special order only. Seems that the lighter weight channels actually do a better job of dampening unwanted sound. And sometimes there’s a situation where the channels don’t seem to be doing the trick, and it turns out that this is because the edge of the single leg channel is pointing to the floor instead of the ceiling. This can result in the weight of the board bringing the edge of the channel into contact with the studs, which in turn negates the benefit of the “floating” action the resilient channel creates to help deaden the sound.

I’ve got a high traffic situation where it has been suggested that I consider using a veneer plaster system because it is more economical than conventional plaster but more durable than regular drywall. Can you elaborate?

AWCI’s Technical Manual Number 7, Veneer Plaster Manual, says that veneer plaster has some real advantages over both regular gypsum board and three-coat plaster because it combines the best features of both systems. For starters, it is more abrasion resistant than regular gypsum board and goes up faster than three-coat plaster (therefore offering both material and labor saving over three-coat plaster). Properly finished, the joints and other surface imperfections are much less noticeable than with regular gypsum board. It can be finished with anything from a variety of textures to a gloss paint. The veneer plaster dries in roughly an hour and can often be painted the next day. Since it can be applied over fire rated veneer base, you get a built-in fire rating.

But because the plaster veneer is 1/16 to 3/32 inches thick, there’s not much margin for error in the installation of the veneer’s base (commonly known as “blue board”—the blue finish intentionally fades to indicate that it needs to be prepared per the manufacturer’s recommendations before proceeding). Fasteners must be carefully driven flush to avoid irregularities that would go undetected in the finish until it’s dry. Joints must be tight and painstakingly taped in accordance with the veneer plaster manufacturers’ recommendations to avoid detection or cracking. And perhaps most important, because you’re using a plaster material, you’ve got have an experienced finisher who knows the working properties of plaster to get the full benefit of this system.

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