

The Risks of Grouting Frames

When should frames be grouted? Ask three people and you'll probably get three different answers. In fact, the most common word entered in the search bar on the Steel Door Institute website is "grout". It's understandable. There are a lot of conflicting opinions on the topic. We would like to take this opportunity to share with you SDI's stance on grouting frames.

Grouting should never be specified for drywall construction. When the grout is drying, the moisture only has a few places to go. The first is into the drywall, which weakens it and may hinder the frame's integrity or ability to retain anchors. The other places the moisture could go are into the hardware or the bottom of the frame. And we all know what happens when metal is in a moist environment—rust.

A properly anchored frame will not be any sturdier if it is grouted. After all, drywall slip-on frames have passed fire and hose stream tests, cycle tests, and even impact tests with only anchoring.

Grouting is usually not necessary for masonry construction either. To be clear, if the grouting is done properly it will not cause any issues with the frame. Unfortunately, thin pumpable slurry is often used and its excess water causes rust. There was one project where 300 doors were pumped with slurry and all of them had rusted hinges after just two months (see image). Holes were then drilled in the bottom of the frames and moisture started to seep out. So remember, grout should always be hand troweled and never pumped.

Grout can certainly improve the sound deadening qualities of a frame, although similar acoustical performance can be achieved with other sound deadening materials. For fire rated openings, you should verify that the grout or bituminous coating will not negate the rating.

If you do decide to grout frames, it is essential that:

- ✓ It is only used in masonry openings, never drywall.
- ✓ It is hand troweled and not pumped. The excess water from pumpable slurry causes rust.
- ✓ It does not contain anti-freeze agents unless the frame is backcoated for corrosion protection.
- ✓ The frame is braced during grout application to prevent bowing and sagging.
- ✓ The installers reference the frame manufacturer's instructions.

There are a lot more risks than rewards when grouting frames. However, a properly grouted frame in masonry construction will improve the sound deadening qualities of the opening.

Resources

SDI 127-I	Grouting Frames in Drywall
ANSI/SDI A250.8 (Section 4.2 - Frame Installation)	Grouting Frames in Masonry
SDI 128	Guidelines for Acoustical Performance