

Gasketing: One of the biggest failures in fire door inspections

Have you ever stayed in a hotel where light seeped in through the perimeter of the doorframe? If light can seep through, then so can smoke from a fire. It happens because of insufficient or poor quality gasketing. Without tight, continuous seals, a door will fail fire door inspections every time.

Properly functioning fire and smoke doors are integral to every building's life safety systems and procedures. It's important for architects to understand code obligations and potential liabilities for non-compliance—and prevent them before they occur.



“It’s not just a matter of ensuring successful fire door inspections,” says Jerry Heid, AHC, National Sales Manager for Zero International, “but making certain that fire doors perform effectively when needed.”

By specifying the right gasketing, you also protect owners from the substantial costs of remediating or replacing doors and/or hardware that fail inspections—or worse, the liabilities that may be incurred due to failure in a fire.

“Gasketing is specified because of the function it performs,” Heid says. “Architects have a responsibility to building owners to ensure they specify a product that passes fire code—during initial inspection and annually.”

There are three types of gasketing:

- **Stick-on:** While this is the least expensive and easiest to apply, it is the least effective gasketing. Temperatures and cleanliness can also affect adhesion. As a result, it may need to be replaced more frequently than the other types.
- **Screw-on:** This type is more stable, durable and reliable than stick-on, but it is sometimes not chosen because it is more expensive and requires additional time for installation.
- **Adjustable screw-on:** For best results in the field, adjustable gasketing is always recommended. Not only is it more stable and durable than stick-on, the adjustability provides added flexibility as it can be modified every six inches to offset alignment problems or help compensate for poor installation.



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Why gasketing issues occur

When issues occur, it is either due to an insufficient gasket, or one that is improperly installed.

“Issues can arise when a lower quality product is specified, or one is chosen that doesn’t properly fit the door,” Heid explains. “Thin gaskets are appealing because of look and they’re don’t cause problems with closing or latching, but if a door is bowed or a frame misaligned, a thin gasket won’t make up difference and will cause other problems.”

The type of rubber used in a gasket also influences its effectiveness. Many use vinyl, but it can become brittle over a year’s time, negative impacting both durability and life cycle costs. Heid recommends rubber made from silicone or neoprene. In fact, all standard gasketing from Zero International are made from good quality neoprene and silicone to provide durability and solid footing in gasket housings longevity.

Gasketing and sound control

In addition to fire and life safety requirements, gasketing affects sound control. After all, doorways are the critical link in blocking noise from the outside, as well as protecting conversation on the inside.

“The expectation of privacy is much greater now,” explains Heid. “In healthcare for example, HIPPA and the confidentiality of patient-doctor communications must be considered. But it’s not just healthcare, that expectation is now relevant in many types of environments, such as school nurse and guidance counselor offices in schools, as well as corporate offices and conference rooms.”

Quality impacts effectiveness

Doors and gaskets will need to function properly through thousands of cycles over many years. Differences in materials and construction can have major impact on durability, ease of use and service life.

For more on gasketing, visit www.zerointernational.com.

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