

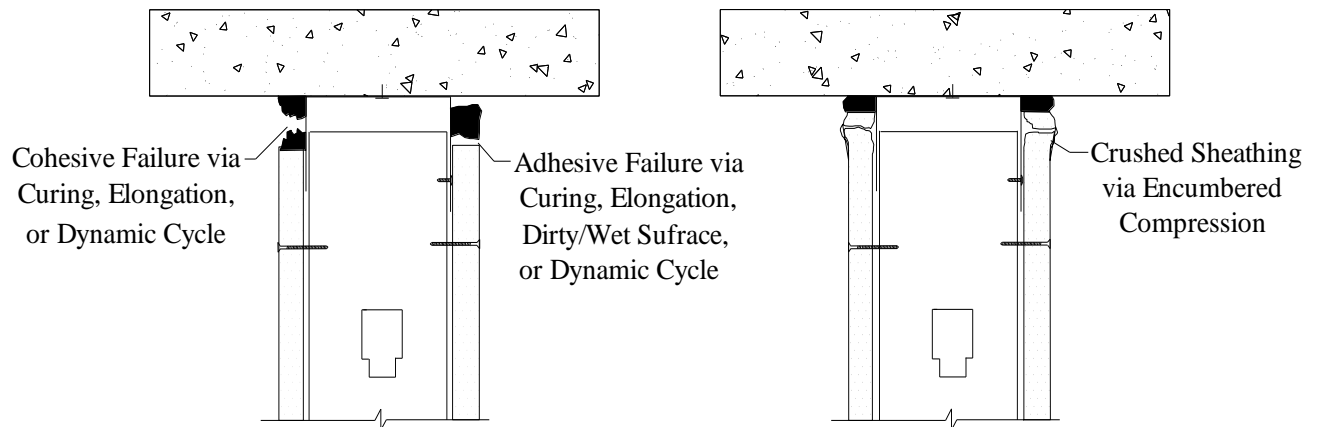
## DC3 – Safti-Seal vs. Caulk Considerations



**Safti-Seal** - ASTM E90 tested up to -STC 64 - (per tested construction type)

- Tested as protection of “dynamic joint” in assembly (exposed at wall partition edge)
- Unique Safti-Strip gasket location seals against substrate "flanking paths around assembly"
- Thickness of Safti-Strip provides seal against wall sheathing "flanking paths through assembly"
- Cured Safti-Strip provides ***indefinite*** seal per UL 2079 level III (seismic) dynamic cycle
- UL 2079 certification:
  - Movement capability = 100%
  - Level of dynamic cycle = III (seismic)
  - L-rating at ambient = Less than 1 CFM/Lin Ft.
  - L-rating at 400 deg. F = Less than 1 CFM/Lin Ft.

### **Typical "Seal" Failures Field Applied "wet" Mastic Considerations**



### **Installed gap requirements to accommodate 1/2" overall movement comparison:**

- Safti-Seal = **1/4"** - (based on 100% unencumbered movement capability)
- Typical Sound Caulk = **4"+** - (based on 12% encumbered movement capability)

\*Safti-Seal joint protection also provides STC rating of non-dynamic (static joint in partition assembly) sealing flanking paths between partition and substrate

## DC3 – Safti-Seal vs. Caulk Considerations

As noted in Gypsum Association Fire Resistance Design Manual 19th edition:

### SECTION III - SOUND CONTROL

#### SOUND INSULATION

The first essential for airborne sound insulation using any system is to close off air leaks and/or flanking paths by which noise can go through or around the system. Small cracks or holes will increase the sound transmission at the higher frequencies. This can have a Detrimental effect on the overall acoustical performance and the STC, particularly for higher rated systems. Failure to observe special construction and design precautions can reduce the effectiveness of the best planned sound control methods.

*Systems shall be airtight.* Recessed wall fixtures, such as medicine cabinets or electrical, telephone, television, and intercom outlets, that penetrate the gypsum board shall not be located back-to-back or in the same stud cavity. Any opening for fixtures or pipes shall be cut to the proper size and sealed. The entire perimeter of a sound insulating system shall be made airtight to prevent sound flanking.

Flexible sealant or an acoustical gasket shall be used to seal between the STC rated system and all dissimilar surfaces and also between the system and similar surfaces where perimeter relief is required. TAPING GYPSUM BOARD WALL AND WALL-CEILING INTERSECTIONS PROVIDES AN ADEQUATE AIR SEAL AT THESE LOCATIONS. ASTM E 497, *Standard Practice for Installing Sound-Isolating Lightweight Partitions*, provides additional information.

#### Safti-Seal Profile - Acoustical Gasket Protection

- Factory metered dosage applied in controlled environment or field application
- Eliminates field under, "mis", and "non" application of caulks/sprays
- Eliminates shrinkage, cracking, and separation of caulks/sprays (loss of "seal")
- No fatigue for life of assembly

