

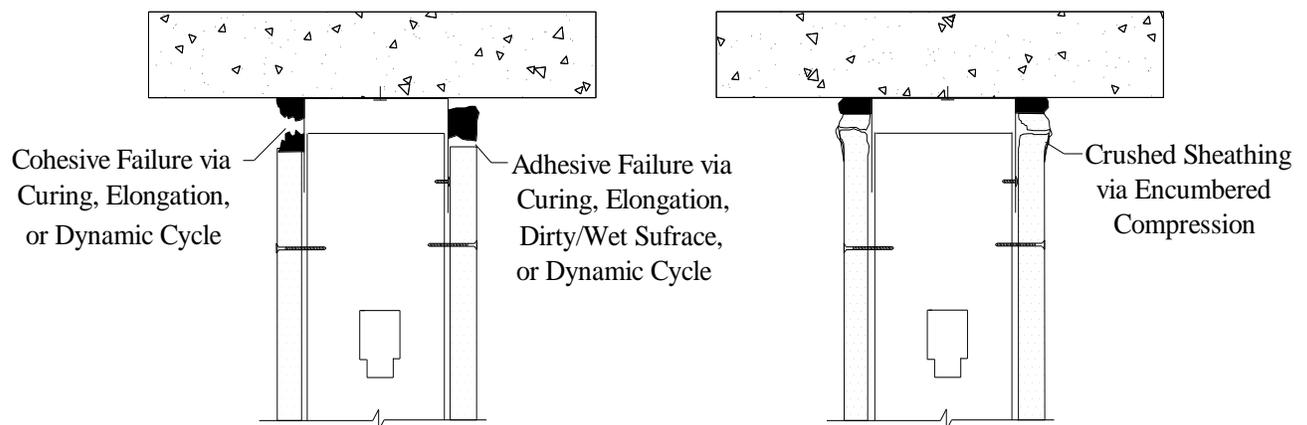
## DC3 – Safti-Seal vs. Caulk Considerations



**Fire Rated (FRG) & Smoke n Sound (SSG) Gaskets - ASTM E90 tested up to – STC 64**

- Tested as protection of “dynamic joint” in assembly (exposed at wall partition edge)
- Unique Safti-Seal gaskets butted against substrates seal "flanking paths over/under assembly"
- Thickness of Safti-Seal gaskets seals against wall sheathing "flanking paths through assembly"
- Safti-Seal gaskets provides **Fail-Safe** 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 Gaskets = **1/4"** - (based on 100% unencumbered movement capability)
- Typical Sound Caulk = **2"** - (based on 12% encumbered movement capability)

\*Safti-Seal Gaskets also provide STC rating of non-dynamic joints (static joints in partition assembly) sealing flanking paths between partition and substrate

## DC3 – Safti-Seal vs. Caulk Considerations

### SECTION III - SOUND CONTROL (Gypsum Association Design Manual 19th edition)

#### 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 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 Fire & Smoke n Sound Gaskets - Acoustical Gasket Protection**

- Fire rated includes cured intumescent & TC3 composites for field or factory application
- Smoke n Sound includes abuse resistant outer layer preventing deflection damage
- Eliminates under, over, "mis", and "missed" application of caulks/sprays
- Eliminates shrinkage, cracking, and separation of caulks/sprays (loss of "seal")
- No fatigue for life of assembly

- 1) Compressible thickness seals against "flanking" through wall
- 2) Flexible cured gasket forms/seals against substrate and "flanking" over assembly
- 3) Fastener buildup accommodated and "sealed over"

