

# Fire & Smoke/Sound Verify & Authorization Submittal

## Product & *Dynamic Joint Deflection* Design/Specification

(Fill in Shaded Areas)

<i>Product/System</i> <i>Manufacturer Info - Third Party Cert.</i>			<i>Project Design - Specifications</i>		
<b>Product:</b>		<b>Cert</b>	Project:		<b>Spec</b>
<i>Listed Movement Capability %</i>	<i>MC%</i>		<i>Total Overall Deflection – E.O.R:</i> (Compression + Extension)		<i>DEF</i>
<i>Architectural Design Gap</i>	<i>ADG</i>		<i>Install Gap Required (multi-story):</i> <span style="background-color: yellow;">(DEF ÷ MC% ÷ 2)</span>		<i>IGR</i>
<i>Shrinkage Rating</i>	<i>SR</i>		<i>Install to Accommodate Shrinkage:</i> <span style="background-color: yellow;">(IGR ÷ SR)</span>		
<i>Project Zone Rating (I, II, III)</i>	<i>PZR</i>		<i>Product Movement Cert. (I, II, III)</i>		<i>PMC</i>

*If ADG is < IGR – Review Specification & Drawing Details*

*If PZR > PMC – Review Specification & Drawing Details*

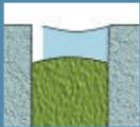
*Install Authorization outside Limitations/Certification (IGR): Install Gap = \_\_\_\_\_”*

	<i>Company</i>	<i>Signature/Authorization</i>	<i>Print</i>	<i>Date</i>
<i>Architect</i>				
<i>Acoustic Engineer</i>				
<i>General Contractor</i>				
<i>Joint Seal Installer</i>				
<i>Code Official</i>				


### *Installing Outside Limitations and Performance Considerations:*

#### Typical Modes of Joint Failure

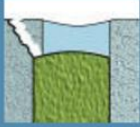
Know and avoid the pitfalls by careful **PLANNING, PREPARATION, and APPLICATION!**



**Adhesive Failure**  
**Problem:** Sealant pulls away from substrate.  
**Solution:** Improve bond by cleaning all contact areas



**Cohesive Failure**  
**Problem:** Sealant tears when extended.  
**Solution:** Choose a more flexible joint design.




**Substrate Failure**  
**Problem:** Contact surfaces fail due to stress applied by sealant.  
**Solution:** Repair substrate and/or choose a more flexible joint design.


#### Beware of Three Sided Adhesion

Bond breaker tapes, foam backer rods, even mineral wool used properly can prevent cohesive failures!

**WRONG!**




Sealant bonds to the deflection track. The wall may become load bearing.




Flexing the joint either tears the sealant when extended or damages the substrate when compressed.

**RIGHT!**



Bond breaker prevents adhesion to the track.



Sealant stretches freely as the joint is flexed.

	<i>Shrinkage</i>	<i>Movement</i>	<i>Max. Install</i>	<i>Max. Deflection</i>
<b>Safti-Seal FRG – (UL Fire Rated)</b>	0	100%	1.00	2.00”
<b>Safti-Seal SSG – (UL Cycle and L-Rated)</b>	0	100%	0.50	1.00”
<b>3M - Smoke and Sound SS100</b>	39.5%	10%	--	--
<b>3M - FD 150+ - (UL Fire Rated)</b>	39.5%	19%	0.75	0.285”
<b>Tremco - Smoke &amp; Sound Sealant</b>	--	12.5%	--	--
<b>Tremco - Tremstop Fyre Sil - (UL Fire Rated)</b>	--	25%	0.50	0.25”
<b>Rectorseal - SAS Smoke &amp; Acoustic</b>	--	33%	--	--
<b>Rectorseal - MC 1200, 1000, 150+ - (UL Fire Rated)</b>	--	20%	0.75	0.30”
<b>STI – Specseal Smoke ‘n’ Sound Sealant</b>	30.9%	NA	--	--
<b>STI – Specseal Smoke ‘n’ Sound Spray</b>	--	8%	--	--
<b>STI – Specseal ES Elastomeric Sealant – (UL Fire Rated)</b>	31%	25%	0.75	0.375”
<b>USG – Acoustical Sealant – (UL Fire Rated)</b>	--	25%	0.625	0.313”
<b>Hilti – CP606 – (UL Fire Rated)</b>	22.2%	17%	0.75	0.25”
<b>Hilti - CP506 Smoke and Acoustic Sealant</b>	25%	12.5%	--	--
<b>OSI – Draft &amp; Acoustical Sealant</b>	--	NA	.0625	--
<b>Hilti CFS-TTS SA</b>	0	50%	0.50	0.50”
<b>Hilti CFS-TTS – (UL Fire Rated)</b>	0	50%	0.50	0.50”
<b>STI – TTG (Mineral Wool Fill Require – UL Fire Rated)</b>	0	100%	0.50	1.00”
<b>Cemco Fire Bead – (UL Fire Rated)</b>	0	50%	0.50	0.25”
<b>Cemco Hot Rod XL – (UL Fire Rated)</b>	0	33%	0.75	0.50”