



# Flame Seal-TB™ as a Thermal Barrier and Ignition Barrier over Spray Polyurethane Foam

## Top Three Flame Seal-TB Benefits by Audience

| Design Professionals  | Building Professionals   | Building Owners  | Spray Applicators  |
|---|--|--|--|
| <b>Design solution</b> where Prescriptive Thermal Barriers are not cost-effective or installation is limited by irregular surfaces. | No primer needed, <b>fast cure schedule</b> , and clean application to keep the project time line moving forward.        | “Expanded” Material <b>warranty</b> available when application is installed by a Flame Seal-TB Qualified Applicator. | A 25% <b>cost savings</b> by buying direct from the manufacturer and our network of resellers compared to other intumescent coating systems. |
| Materials tested the right way and <b>certified</b> through the ICC-ESR process. Test reports available. (*Zero test failures)      | <b>Site audits</b> , at no charge to users, to ensure fire safety and code requirements are met. (projects >20,000 s.f.) | <b>Cost-effective material</b> compared to other intumescent coatings and prescriptive thermal barriers.             | Project support that includes <b>24-hour technical support</b> and onsite expanded project support for projects >20,000 s.f.                 |
| Contributes to USGBC <b>LEED®</b> Points  | Network of <b>Qualified Applicators</b>  | <b>Clean white or grey finish</b> that can be wiped down after full cure.  | <b>Qualified Applicator Program</b> registry with your contact info on <a href="http://www.flamesealtb.com">www.flamesealtb.com</a>          |

\*Zero failures include every attempted Thermal Barrier test on Closed Cell SPF and Ignition Barrier test on Open Cell SPF. The only product with a perfect test record.

### Where Is A Thermal Barrier Required?

All model building codes require that the spray polyurethane foam be separated from interior occupied spaces by an “approved thermal barrier.” Therefore, unless an exception applies, all interior SPF applications are required to be covered with a thermal barrier, covered with an equivalent thermal barrier or be part of a tested alternative assembly.



### How can Flame Seal-TB be used as a Thermal Barrier Over SPF?

SPF may be covered with other materials such as an intumescent coating system or left exposed provided the assembly has been specifically approved on the basis of a large-scale fire test representing the actual end-use configuration.

Thermal Barrier (Pass/Fail criteria=15 minutes)-**Flame Seal-TB** has been approved on the basis of a large-scale fire test representing the actual end-use configuration. Flame Seal-TB has passed the alternative assemblies: UL 1715 (Fire Test of Interior Finish Material).

**Alternative assemblies tested under AC 377, Appendix X are not appropriate alternative assemblies for meeting thermal barrier requirements. They are for meeting ignition barrier requirements only.**

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## Where Is an Ignition Barrier Permitted?

Model building codes allow an exception to the thermal barrier requirement in attics and crawlspaces where entry is made only for repairs or maintenance (IRC) or for the service of utilities (IBC). ACC 377, Appendix X limits alternative materials and assemblies in attic and crawlspaces as follows:

- a. Entry to the attic or crawl space is only to service utilities, and no storage is permitted.
  - b. There are not interconnected attic or crawl space areas.
  - c. Air in the attic or crawl space is not circulated to other parts of the building.
  - d. Attic ventilation is provided when required by IBC Section 1203.2 or IRC Section R806, except when air-impermeable insulation is permitted in unvented attics in accordance with Section R806.4 of IRC, Under-floor (crawl space) ventilation is provided when required by IBC Section 1203.3 or IRC Section R408.1, as applicable.
  - e. The foam plastic insulation is limited to the maximum thickness and density tested.
  - f. Combustion air is provided in accordance with Sections 701 and 703 (2006 IMC) and Section 701 (2009 IMC).
  - g. The installed coverage rate or thickness of coatings, if part of the insulation system, shall be equal to or greater than that which was tested.
- [Cited from AC377, effective November 1, 2010]



**Flame Seal-TB has passed the “Modified” NFPA 286 (per Appendix X) (Fire Test of Interior Finish Material) and may cover SPF in attic or crawl spaces as an ignition barrier when properly applied as outlined in the Flame Seal-TB General Information and**

Application Procedure and within the guidelines of the model building codes.

Local building code officials are permitted to allow the use of an alternate assembly which has not been issued an ICC-ESR evaluation report provided that data satisfactory to the code official is submitted for approval. Generally accepted tests for alternative assemblies include:

### **For Ignition Barriers (Pass/Fail criteria = 4 minutes 18 seconds) -Modified NFPA 286, Appendix X, ICC-AC377.**

- NFPA 286 Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth (with specific criteria defined within the IBC or IRC)
- **UL 1715 Fire Test of Interior Finish Material** (with specific criteria defined within the IBC or IRC)
- UL 1040 Insulated Wall Construction



Reference Material:

***SPFA-Thermal Barriers and Ignition Barriers for the Spray Polyurethane Foam Industry***



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