



## Flame Seal TB-C Application Guide

### Description

Flame Seal TB-C™ (Thermal Barrier Canada) is the first and only intumescent thermal barrier coating approved, under ULC S124-06 and ULC S145, over spray polyurethane foam (SPF) in Canada. Flame Seal TB-C™ meets all requirements of the Canadian National and Provincial Building Code 3.1.5.12 standard, giving a new advanced option for SPF protection in the Canadian market. Flame Seal TB-C™ is a two part system that is mixed at a 4:1 ratio. TB-C comes in white and dries to a semi-gloss sheen to ASTM E 119 & CAN/ULC S101 standards.



### Testing

CAN/ULC S124-06	Class B	44 WFT (2 passes)	38 SqFt./ Gal.
CAN/ULC S145	10 Minutes	24 WFT (1 pass)	67 SqFt./ Gal.

### Application

Flame Seal TB-C must be applied via an airless sprayer unit by a **Flame Seal Certified Applicator**. Small jobs or touchups may be performed by roller or brush. Apply at the appropriate coverage rate as seen on the Application Rate Chart. Use a wet mill gauge to check for proper millage. Do not exceed 30 wet mils per pass. Proper care of the environmental conditions is essential to the success of the product. Ensure recommended conditions including temperature, humidity, and dew point prior to installation. Flame Seal TB-C is a two-part coating system. Application training is available from Flame Seal Products or by a recommend distributor for Flame Seal TB-C in Canada. Please seek proper application coverage specs from either the SPF manufacturer or the Flame Seal Testing Matrix.

### Recommended Spray Equipment

Minimum Requirements

Dynamic	At Gun	Tip Size
3000 PSI	2000 PSI	.019-.021

Graco	Ultra Max II 795/1095
Titan	Impact 840/1140

\*Remove all filters!

### Substrate Penetration

Flame Seal TB-C must be applied to surfaces free of dirt, grease, loose particles, and any foreign matter. Thorough mixing is required prior to application. The quality of any application is only as good as the surface preparation that precedes the application. Verify the surface is stable, and not crumbling or deteriorating. If any such defects are found, repair prior to application.

### Application Temperatures

Air Temperature	10°C-32.2°C (50°F – 90°F)
Humidity Range	35% - 70%
Surface Temperature	15.6°C-32.2°C (60°F – 90°F)
Application Product Temperature	15.6°C-32.2°C (60°F – 90°F)

\*ENSURE PROPER CONDITIONS PRIOR TO APPLICATION

### Material Preparation

TB-C is packaged as a “Kit” and will be shipped with a 5-Gallon Pail that contains 4-Gallons of TB-C Resin and a 1-Gallon Bottle of T-50 Crosslinker. TB-C is mixed at a 4 to 1 Ratio. Simply pour 1-Gallon of T-50 Crosslinker directly into the 5-Gallon Pail of TB-C. Mix Flame Seal TB-C and T-50 with a 1/2-inch drill mixer for 3-5 minutes per 5-gallon pail to ensure that that the product is properly blended. If Flame Seal TB-C is not properly mixed it can compromise the application. Once mixed, TB-C has a pot life of 60 Minutes. It is important to only mix TB-C when you are ready to spray.

### Training

Flame Seal TB-C should only be installed by a certified Flame Seal Applicator. Please contact flameseal@flameseal.com or call 713-668-4291 for more information on becoming a certified installer.



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### Application Procedure

1. Thoroughly clean spray gun(s) and remove all filters before applying Flame Seal TB-C. Use recommended spray rig, tip size, pressure, and other equipment. Refer to recommended spray equipment above.
2. Ensure that the surfaces are clean and free of dust, oils, and other materials. Repair any compromised areas. Ensure spray foam has a textured finish for best results. Avoid glossy sheen finishes. Spray a light mist coat of SPF to remove sheen.
3. Conduct environmental analysis to determine that the temperature, humidity, and dew point are within guidelines. (air temperature 60°F(15.6°C) – 90°F(32.2°C); surface temperature 60°F (15.6°C) – 90°F (32.2°C); humidity 35 – 85%; conditions must be at least 5°F (3°C) above dew point.) If the environment is outside these requirements, use dehumidifiers or fans. All measurements must be maintained during course of application.
4. TB-C is a water based coating. As with any water-based coating, poor air flow and environmental conditions will compromise application. TB-C contains Isopropyl alcohol (rubbing alcohol). In enclosed spaces, the area can develop a strong alcohol smell. Proper ventilation is required. The buildings ventilation must meet minimum code requirements for the structure type per the International Mechanical Code (IMC).
5. Ensure that the application crew is using personal safety equipment. A full tyvek suit with a respirator is required.
6. Use metal plates with wet mil gauges to ensure proper WFT. These plates should be placed strategically across the project and retained as an element of project documentation. Record on the job work record document found on our TB-C page.
7. Flame Seal TB-C must be thoroughly mixed with an electric drill and paint mixing attachment. Mix at moderate for 3-5 minutes. After mixing, add in the crosslinker T-50, and mix again until fully incorporated. TB-C has a 60 minute pot life. Mix as needed on the jobsite. 5 Gallons will take 5-10 minutes to spray.
8. Apply Flame Seal TB-C in a smooth, overlapping pattern. To achieve S124-06, spray 2 passes at 22 mils each. For S145, spray 1 pass at 24 mils. Do not spray more than 28 WFT in a single pass. Ensure that all surfaces receive the appropriate amount of paint. Test depth regularly with a wet mil gauge and use metal plates. Do not pour product into larger containers.
9. Under normal conditions, Flame Seal TB-C is dry to the touch in 1-4 hours. Maintain temperature and humidity for 24 hours so that Flame Seal TB-C is fully cured. Recoat between 24-48 hours after first coat.
10. Clean-up overspray and airless spray unit with warm soapy water. Make sure that the airless sprayer has been thoroughly cleaned before leaving the job site.
11. For more information or inquiries on Flameseal TB-C, contact [flameseal@flameseal.com](mailto:flameseal@flameseal.com), or visit [flameseal.com](http://flameseal.com). To make a purchase online, visit [flamesealshop.com](http://flamesealshop.com).



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