

SafeCoat[®] TBI: Bringing it Home with a New Canadian-Made Fire Protection for Use Directly on Polyurethane Spray Foam

Tested to the CAN/ULC S145:2018: STANDARD METHOD OF TEST FOR THE EVALUATION OF PROTECTIVE COVERINGS FOR FOAMED PLASTIC INSULATION – FULL-SCALE ROOM TEST

Newest addition to Quantum's SafeCoat[®] Brand provides thermal barrier when applied directly on polyurethane spray foam insulation.

Developed and Manufactured by: Quantum Chemical, St. Albert, AB

Independent Testing: Intertek Testing, Elmendorf, TX – June 29, 2023

Ready for Market: Immediate as an 'Alternative Solution' as specified in this release



Above: Elmendorf, TX Corner Test Room coated with spray foam insulation and SafeCoat[®] TBI (Thermal Barrier Innovation).



Above: A Corner Room test in progress.

Scope:

The purpose of the **CAN/ULC S145** method is to determine the contribution to fire growth of protective coverings over foamed plastic insulation when tested in a Full-Scale Room Test in accordance with **CAN/ULC-9705, Fire Tests – Full-Scale Room Test for Surface Products**. This method measures the time to flashover under specified test conditions and evaluates specific combinations of protective materials and foamed plastic insulation as individual systems.

The **SafeCoat® TBI** meets the intent of the building code requirement as a thermal barrier 'alternative solution' where the NBC Part 9 interior finishes (Clauses 9.10.17.10.(1)(a) of the NBC 2010/2015) can be approved by the Authority Having Jurisdiction (AHJ). The **SafeCoat® TBI**, applied at 18 mils WFT/12 mils DFT prevented the foamed plastic from reaching flashover in the first 10 minutes following CAN/ULC-9705 that can be used as an alternative solution in combustible construction where 11.7-mm Oriented Strand Board (OSB), 13-mm oak-veneered plywood, 13.13-mm spruce plywood, 11.9 DF plywood; 13-mm particleboard, or insulating wood fibreboard are specified. The **SafeCoat® TBI** performed >10 times better than these NBC approved substrates.

“Code Compliance via Alternative Solutions

Where a design differs from the acceptable solutions in Division B, then it should be treated as an "**alternative solution**." A proponent of an alternative solution must demonstrate that the alternative solution addresses the same issues as the applicable acceptable solutions in Division B and their attributed objectives and functional statements. ... Clause 1.2.1.1.(1)(b) makes it clear that an effort must be made to demonstrate that an alternative solution will perform as well as a design that would satisfy the applicable acceptable solutions in Division B — not “well enough” but “as well as.”

National Building Code of Canada, Sentence A-1.2.1.1.(1)(b)”

SafeCoat® TBI was independently tested at the **Elmendorf Intertek Testing Lab**, located just outside of San Antonio, TX, which specializes in all things fire and flammability testing for building products.

Quantum Chemical is a specialty coatings formulator and manufacturer involved in the containment, transportation, utility infrastructure and building construction/refurbishment industries with a keen focus on fire retardant and Zero VOC products. Quantum Chemical's Canadian-made fire retardant products support and protect infrastructure.

For additional information about **SafeCoat® TBI** please be sure to visit us at <https://www.quantumchemical.com/safecoat-tbi> or contact

Vicki Beier: vbeier@quantumchemical.com or dmartin@quantumchemical.com