



15th June 2015

Eagles Specialized Coatings and Protected Environments
18523 Fraser Hwy
Surrey, BC V3S 8E7

Attention: Mr. D.W Pearce

RE: Assessment of Supertherm Ceramic Insulation Coating For use at New Industrial Buildings

Dear Mr. Pearce,

At your request, this letter is in regards to the concerns of the application of a Supertherm Ceramic coating for use on tilt-up concrete walls on new industrial buildings.

This product is manufactured by Superior Products International II, inc. and distributed by Eagle Specialized Coatings and Protected Environments. This assessment includes a review of the provided documents on the manufacturer's website, the ASHRAE 90.1-2010 standard and BC Building Code 2012.

The intent of this assessment is to determine the R-value of the tilt-up wall panels after applying a sufficient layer of a Supertherm Ceramic insulation and to determine this R-value's compliance to the ASHRAE 90.1 and Part 10 of BC Building Code 2012.

After reviewing all the documentation listed above, completing R-value calculations, and reviewing ASTM C-236 testing results, the assessment is as follows:

The resulting R-value for the wall would be 9.7 for applying the product on the exterior face of the wall and if we are only considering conduction heat transfer. If we consider a combination of radiation, convection and conduction heat transfers and for applying the product on interior face of the wall, the R-value would be 19.

According to table 10.2.1.1.B from BC Building Code 2012 which derived from ASHRAE 90.1 standard (table 5.5.5 of ASHRAE 90.1-2010), the minimum R-value requirement for this wall is 7.4. Therefore, proper application of the Supertherm on tilt-up concrete wall assembly would meet the minimum requirement of part 10 of BC Building Code 2012.

Please contact me with any further questions or concerns.

Yours truly,

McCUAIG & ASSOCIATES ENGINEERING LTD.

Ali Karimi, P. Eng

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