Interested Parties
Reflective Insulation and The Florida Building Code

Greetings,

This letter concerns the insulation product rating for Reflective Insulation product AA2 manufactured by Fi-Foil Company located in Auburndale, Florida. The Florida Building Code-Energy Conservation 6th Edition (2017) R303.1.1.1 states that “The Thermal Resistance (R-value) of insulation shall be determined in accordance with the U.S. Federal Trade Commission R-value rule (CFR Title 16, Part 460) in units of h∙ft²°F/Btu at a mean temperature of 75°F (24°C).”

CFR Title 16, Part 460 §460.5 paragraph (c) requires R-value tests for reflective insulation systems be performed in accordance with ASTM test method C1363-11 with a test panel constructed according to ASTM C1224-15.

Reflective insulation identified as AA2 manufactured by Fi-Foil Company located in Auburndale, Florida has been tested according to the Federal Trade Commission requirements by CAN-BEST (Canadian Building Envelope Science and Technology) a laboratory located in Brampton, Ontario, Canada that is accredited in accordance with ISO 17025.

I have reviewed the CAN-BEST report number L20-1368-5820 dated June 24, 2020 that was provided to me by Fi-Foil Company. Test report L20-1368-5820 contains the result: Thermal Resistance (R-value) of 4.1 h∙F∙ft²/Btu for product AA2. The R-value result 4.1 h∙F∙ft²/Btu was obtained at a cavity mean temperature of 71.1°F and a temperature difference (ΔT) across the insulated cavity of 29.9°F. These test conditions satisfy the requirements in section 9.7.3 of ASTM C1224 (T_mean = 75 +/- 4 °F and ΔT = 30 +/- 2 °F). The cavity depth for this test was 0.805 to 0.810 inches which includes the staple tab thickness. The reflective insulation was mounted on nominal 1 by 2 inch furring that was spaced 16 inches on-center.

The product R-value declared by Fi-Foil Company is 4.1 h∙F∙ft²/Btu for the system tested. It is my opinion that the test report identified above validates the F-Foil Product R-value claim.

Respectfully,

[Signature]

David W. Yarbrough, PhD, PE (Florida 50959)
July 6, 2020
Interested Parties
Reflective Insulation and The Florida Building Code

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This letter concerns the insulation product rating for Reflective Insulation product AA2 manufactured by Fi-Foil Company located in Auburndale, Florida. The Florida Building Code-Energy Conservation 6th Edition (2017) R303.1.1.1 states that “The Thermal Resistance (R-value) of insulation shall be determined in accordance with the U.S. Federal Trade Commission R-value rule (CFR Title 16, Part 460) in units of h·ft²·°F/Btu at a mean temperature of 75°F (24°C).”

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Reflective insulation identified as AA2 manufactured by Fi-Foil Company located in Auburndale, Florida has been tested according to the Federal Trade Commission requirements by CAN-BEST (Canadian Building Envelope Science and Technology) a laboratory located in Brampton, Ontario, Canada that is accredited in accordance with ISO 17025.

I have reviewed the CAN-BEST report number L20-1368-5820a-Rev.1 dated July 9, 2020 that was provided to me by Fi-Foil Company. Test report L20-1368-5820a-Rev.1 contains the result: Thermal Resistance (R-value) of 4.1 h·°F·ft²/Btu for product AA2. The R-value result 4.1 h·°F·ft²/Btu was obtained at a cavity mean temperature of 72.3°F and a temperature difference (ΔT) across the insulated cavity of 28.0°F. These test conditions satisfy the requirements in section 9.7.3 of ASTM C1224 (T_mean = 75 +/- 4 °F and ΔT = 30 +/- 2 °F). The cavity depth for this test was 0.805 to 0.810 inches which includes the staple tab thickness. The reflective insulation was mounted on nominal 1 by 2 inch furring that was spaced 24 inches on-center.

The product R-value declared by Fi-Foil Company is 4.1 h·°F·ft²/Btu for the system tested. It is my opinion that the test report identified above validates the F-Foil Product R-value claim.

Respectfully,

David W. Yarbrough, PhD, PE (Florida 50959)
July 9, 2020