

HSC – heat calculation

Thank you for your mail with the copy of the ASTM C 177. It is very useful.
We use kcal or Watt in Japan, so I converted the test result to our standard. I hope my calculation is correct.

The test result says "Thermal Conductivity," but the unit used is BTU-in/h-sq.ft.-degF, so I think it is the "heat transfer coefficient (U-Value)."

307 mils = 7.8mm (0.0078m)
 $0.64 \text{ h-sq.f.-degF/BTU} \times 0.2048161 = 0.131 \text{ sq.m.-h-degC}$
Thermal Conductivity (K) = $0.0078 / 0.131 = \underline{\underline{0.0595 \text{ kcal/m-h-degC}}}$

Checking calculation:

Hello J.E.,

Exceedingly complicated calculation but the final result is correct.

It is 0.06 kcal/m-h-degC or 0.07 W/m-degC.

The measurement units and the wording used by V-tec are correct. It is thermal conductivity. Independent of thickness.

Best Regards,

Claudio