

Chapter2_example3

Resistances in (degree Fahrenheit.hr)/BTU:

Resistance from air to sheet metal: 1.266 degree F.hr/BTU

Resistance of steel layer: 0.0001 degree F.hr/BTU

Resistance of styrofoam layer: 3.125 degree F.hr/BTU

Resistance of fiberglass layer: 0.231 degree F.hr/BTU

Resistance from ice water to fiberglass: 0.0067 degree F.hr/BTU

The overall heat transfer coefficient is 0.216 BTU/(hr. sq.ft.degree Rankine)

The heat transfer rate is 12.5 BTU/hr