

# Thermal Values – Air Infiltration

---

## U/R Values of Steel Door Assembly

Results of the evaluation and tests to the requirements contained in the following standards:

- *ASTM C1199-09* Test Method for Measuring the Steady-State Thermal Transmittance of Fenestration Systems using Hot Box Methods
- *ASTM C1363-05* Test Method for Performance of Building Materials and Envelop Assemblies by Means of a Hot Box Apparatus
- *ASTM E1423-06* Practice for Determining Steady-State Thermal Transmittance of Fenestration Systems

**Material tested:** 18 gauge *polystyrene* core door; 16 gauge frame, standard hardware and accessories

**Result:** U-Value (Btu/hr·ft<sup>2</sup>·°F) .39 Measured Overall R-Value (ft<sup>2</sup>·hr·°F/STU) 2.58

**Material tested:** 18 gauge *polyurethane* core door; 16 gauge frame, standard hardware and accessories

**Result:** U-Value (Btu/hr·ft<sup>2</sup>·°F) .36 Measured Overall R-Value (ft<sup>2</sup>·hr·°F/STU) 2.74

## Air Infiltration

Results of the evaluation and tests to the requirements contained in the following standards:

- ASTM E283 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies

**Material tested:** PDL standard components

**Result:** 0.143 sfm/sf @ 1.57