

R-Value and U-Factor for Insulated Hollow Metal Doors

R-Value (thermal resistance) is the capacity of an insulating material to resist heat flow. The higher the R-value, the greater the insulating power.

U-Factor (measurement of heat transfer) measures how effective a material is as an insulator. The lower the U-Value is, the better the material is as a heat insulator.

RSI (metric R Value)

Insulation Norms used for hollow metal doors:

Polystyrene Core;

This core meets requirements set forth by ASTM C518, ASTM C519, ASTM D1621, ASTM C203, ASTM D2126, ASTM D696, ASTM E-96, and ASTM D2842. The flame spread and smoke developments meets requirements of CAN/ULC S102.2 M. The core is rigid extruded fire retardant, closed cell board with a density of 1.0 to 2.0 pcf (16 to 32 kg/m³).

Thermal values; R-Value of 6.0, RSI Value of 1.06, and a U-Value of 0.167 minimum.

Polyurethane Core;

The core meets the physical property requirements of ASTM C 1289-.01 Type 2, Grade 2 and CAN/ULC S704.

The core is rigid, modified polyisocyanurate, closed cell board with a density of 2.0 pcf (32 kg/m³).

Thermal values; R-Value of 11.0, RSI Value of 1.93, and a U-Value of 0.09 minimum.