

Energy Efficient Solutions

Fact Sheet

What do the U and R value ratings mean?

U-Factor:

Overall coefficient of heat transmittance through a door and frame assembly measured in BTU's per hour per square foot of area per degree fahrenheit temperature difference between the air on one side to the air on the two sides of the door (BTU's/hr-ft 2° F). The lower the U-Factor, the better the insulation.

R-Value:

Thermal resistance is a measure of ability to resist heat flow. R is an expression of the total resistance to heat flow through a complete panel section or construction assembly. R-Value represents a value of the thermal resistance in hours - square foot - degrees Fahrenheit per BTU. R-Value is the numerical reciprocal of the U-Value. The higher the R-Value, the higher the insulating value.

Optimize energy efficiency with high performance openings.

According to the U.S. Green Building Council (USGBC), in the United States alone, buildings account for:

- 72% of electricity consumption
- 24% - 50% of energy use
- 38% of all carbon dioxide (CO2) emissions

Ceco doors and frames, along with Pemko seals and thresholds combine to provide the some of the industry's most energy efficient openings available today. Our openings are tested and certified by an independent 3rd party test lab. Ceco recommends all design and building professionals compare products based on ASTM C1363 operable assembly testing per NFRC 102-2014 for a more accurate indication of thermal performance. Ceco doors do not have to sacrifice strength in order to achieve insulating performance. For example, Ceco Trio-E has been certified to a design pressure of +/-100 psf with a hurricane rated opening.

Door U-Factor and R-Value Ratings

Door Series/Core	NFRC 102 -2014/ASTM 1363 Standardized Thermal Transmittance Test Methodology*					
	Mercury Frame		Weather Kerf		Standard Frame	
	U-Factor	R-Value	U-Factor	R-Value	U-Factor	R-Value
Trio-E / Polyurethane & Steel Stiffened	0.36	2.78	0.38	2.63	0.41	2.44
Mercury / Polyurethane & Steel Reinforced	0.37	2.70	0.38	2.63	0.40	2.50
Imperial / Polyurethane	0.38	2.63	0.38	2.63	0.40	2.50
Imperial / Polyurethane & Embossed	0.39	2.56	0.38	2.63	0.41	2.44
Legion / Polystyrene	0.43	2.33	0.44	2.27	0.45	2.22
Imperial / Polyurethane & Half Glass	0.41	2.44	0.41	2.44	0.43	2.33
Legion / Polystyrene & Half Glass	0.46	2.17	0.47	2.13	0.48	2.08
Medallion / Steel Stiffened	0.64	1.56	0.45	2.24	N/A	N/A

* Tested with hardware from other ASSA ABLOY Group brands including Corbin Russwin, Pemko, McKinney, Sargent and Yale

Air Infiltration Testing

What is air infiltration? A measurement of the air leakage around the perimeter of a door opening. CFM: Cubic Feet per minute

Door Series/Core	NFRC 400-2014/ASTM 283E Air Infiltration Test Methodology*		
	Mercury Frame	Weather Kerf	Standard Frame
	CFM/SQ FT		
All Ceco steel door constructions	0.1	0.1	0.1

* Tested with hardware from other ASSA ABLOY Group brands including Corbin Russwin, Pemko, McKinney, Sargent and Yale

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ASSA ABLOY, the global leader in door opening solutions

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