

Conductance and Resistance Values for External Air Surfaces

Wind Condition		Type of Surface					
		Foil		Aluminum-Coated Paper		Nonreflective Building Materials	
		Conductance <i>C</i> , Btu/(h) (ft ²) (°F)	Resistance <i>R</i> , 1/[Btu/(h) (ft ²) (°F)]	Conductance <i>C</i> , Btu/(h) (ft ²) (°F)	Resistance <i>R</i> , 1/[Btu/(h) (ft ²) (°F)]	Conductance <i>C</i> , Btu/(h) (ft ²) (°F)	Resistance <i>R</i> , 1/[Btu/(h) (ft ²) (°F)]
Position of Surface	Direction of Heat Flow						
Still air							
Horizontal	Up	0.76	1.32	0.91	1.10	1.63	0.61
45° slope	Up	0.73	1.37	0.88	1.14	1.60	0.62
Vertical	Horizontal	0.59	1.70	0.74	1.35	1.46	0.68
45° slope	Down	0.45	2.22	0.60	1.67	1.32	0.76
Horizontal	Down	0.22	4.55	0.37	2.70	1.08	0.92
7.5-mph wind							
Any position	Any direction (for summer calculations)					4.00	0.25
15-mph wind	Any direction (for summer calculations)					6.00	0.17
Any position							

Source: Courtesy of Johns-Mansville, Denver, CO.