



BUILDING IN ALASKA

EEM-00250

Conversion Factors to SI Metric Units

Physical Quantity	Symbol	To Convert From	To	Multiply By
Length	x	in	m	2.540 000* E-02
		ft	m	3.038 000* E-01
Area		in ²	m ²	6.451 600* E-04
		ft ²	m ²	9.290 304* E-02
Volume		in ³	m ³	1.638 706 E-05
		ft ³	m ³	2.831 685 E-02
Temperature		°F	°C	$^{\circ}\text{C} = (^{\circ}\text{F} - 32)/1.8$
		°F	°K	$^{\circ}\text{K} = (^{\circ}\text{F} + 459.76)/1.8$
Pressure		in Hg (60°F)	Pa	3.376 85 E + 03
Mass		lb	kg	4.535 924 E - 01
Mass/unit area	M	lb/ft ²	kg/m ²	4.882 428 E + 00
Moisture content rate		lb/ft ² • week	kg/m ² • s	8.072 793 E - 06
Density	P	lb/ft ³	kg/m ³	1.601 846 E + 01
Thermal conductivity	k	Btu • in/h • ft ² • F	W/m • K	1.442 279 E - 01
Thermal conductance	C	Btu/h • ft ² • F	W/m ² • K	5.678 263 E + 00
U-value	U	Btu/h • ft ² • F	W/m ² • K	5.678 263 E + 00
Thermal resistance	R	h • ft ² • F/Btu	m ² • K/W	1.761 102 E - 01
Thermal resistivity	r/in	h • ft ² • F/Btu •	m • K/W	6.933 471 E + 00
Heat flow	• q	Btu/h • ft ²	W/m ²	3.154 591 E + 00
Water vapor: permeability (23°C)	u	$\frac{\text{grain}}{\text{h} \cdot \text{ft}^2 \cdot \text{in Hg/in}}$	kg/Pa • s • m	1.459 29 E - 12
Permeance	p, P	$\frac{\text{grain}}{\text{h} \cdot \text{ft}^2 \cdot \text{in Hg}}$	kg/Pa • s • m ²	5.745 25 E - 11

*Exact factor

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Revised May 2005

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