TECHNICAL DATA

Units and Conversions

LENGTH

1 inch = 0.2833 ft = 25.4mm
1 ft = 12 in = 30.48cm
1 yd = 3ft = 0.9144m
1 mile = 1760 yds = 1.609km
1mm = 0.001m = 0.03637 in
1cm = 10mm = 0.3937 in
1m = 1000mm = 3.28 ft or 1.0936 yds
1km = 1000m = 3280 ft or 1094 yds or 0.622 miles

AREA

1 mm^2 = 1 x $10^{-6}m^2$ or $0.01cm^2$
$1cm^2$ = $100m^2$ = 0.155 in^2
$1m^2$ = $10,000cm^2$ = 10.76 ft^2 or 1.196 yd^2
$1km^2$ = $1,000,000m^2$ = 0.3961 sq miles
1 in^2 = $6.452cm^2$ or $645.2mm^2$
1 ft^2 = 144 in^2 = $929cm^2$ or $0.0929m^2$
1 yd^2 = 9 ft^2 = $0.8361m^2$
1 sq mile = $2.59km^2$

CAPACITY

1 ml = $1cm^3$ or $1000mm^3$
1 litre = 1000ml = 0.22 gallons
1 m^3 = 1000 litres = 220 gallons
1 gallon= 4.546 litres or $0.004546m^3$
1 ft^3 = $0.02839m^3$
1 litre of water = 1kg or 2.2lbs
1 gallon of water = 10lbs of 4.54kg

TEMPERATURE

1^oC = (1^oF - 32) x 5/9
1^oF = (1^oC x 9/5) + 32

SURFACE HEATING

1 W/in^2 = 6.45 W/cm^2
$1W/cm^2$= 0.155 W/in^2

PRESSURE

1 Bar = $100kNm^{-2}$ or 100kPa = 14.5 lb/in^2
$1kNm^{-2}$ = 1kPa or 0.01 Bar = 0.145 lb/in^2
1 lb/in^2 = 0.06895 Bar or 6.895kPa or $6.895kNm^{-2}$

WEIGHT

1 kg = 1000g = 2.2046lbs
1 lb = 16oz = 0.454kg
1 ton = 2240lbs = 1.016 tonnes
1 tonne = 1000kg = 0.984 ton

ENERGY

1 kW = $1000Js^{-1}$
1kWhr = 1kW for 1 hour = 3600kJ = 3412 BTU's or 860kcal
1 kJ = 0.2388kcal or 0.952 BTU's
1 kcal = energy required to raise 1kg of water through 1^oC
= 4187 joules or 3.97 BTU's

The technical data is provided only as a means of explaining the results of any calculations or specifications provided by a Howden group company.
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