biotech Australasia

THERMILATE®

makes paint insulate

The **R-value** is a measure of thermal resistance used in heat transfer problems. The SI units for thermal resistance are K·m²/W. R-values are commonly used to characterize thermal insulation materials in buildings. In this context, the unit is often written as RSI (for *R-value Système International*), and a specific value such as *5.530* may be indicated as *RSI–5.530*, but may also simply be written as *R5.530*.

Some countries including America use a non-SI definition: *R* = ft²·°F·h/Btu.

Values using this definition are often written as *R–31.4* (corresponding to *RSI–5.53*), although this form is also used in countries where SI measures are more universally accepted (e.g., Australia).

The National Standards Test Certificate for Thermilate gives the product a "maximum heat resistance" (R) of 20. The corresponding RSI value is 3.52.

The different definitions, without an established standard for distinguishing them, cause much confusion.

The conversion between the two(R) to RSI is 1 ft²·°F·h/Btu ≈ 0.1761 K·m²/W, or 1 K·m²/W ≈ 5.67446 ft²·°F·h/Btu.

A simple conversion method for American R values to Australian RSI values is, to multiply by 0.176.