



CLIMATECRAFT ALUMINUM OFFERING

Thin sheets of metal, as found on interior and exterior panels, are prone to succumb to corrosion.

The ClimateCraft marine grade aluminum provides an additional layer of protection when compared with the more typical 3000 series Aluminum and an even greater level of protection when compared with galvanized steel. Marine grade aluminum is made up of the aluminum alloy 5052-H32.



Salt water corrosion on a steel base

When comparing aluminum 5052-H32 with the more typical aluminum 3000 series, the presence of magnesium helps the alloy to provide a greater level of corrosion resistance.

Chemical Composition of Marine Grade Aluminum

Element %	% Composition
Silicon (Si)	0.25
Iron (Fe)	0.40
Copper (Cu)	0.10
Manganese (Mn)	0.00 – 0.10
Magnesium (Mg)	2.20 – 2.80
Chromium (Cr)	0.15 – 0.35
Zinc (Zn)	0.10
Other (Each)	0.00 – 0.05
Aluminum (Al)	Balance

NOTE: Actual metal chemical composition may vary slightly.

Why Aluminum?

- Weight savings compared to steel 20-30%*.
 - Weight savings can be beneficial for retrofit applications where an existing unit needs to be replaced and increasing structural capacity of the building is cost prohibitive.
- Price savings compared to stainless steel unit of 10-20%*
- Corrosion resistance when compared with galvanized steel

* Weight and price savings can vary depending on unit size, as well as features included within the unit. **Values are provided to give an estimate only.** For actual savings please contact your ClimateCraft Representative.

To support the unit, ClimateCraft welded structural Aluminum 6061-T6 tubular base is used. The ClimateCraft Aluminum 6061-T6 is used to help provide a level of resistance to corrosion while maintaining the strength to rig a unit during installation and support that unit through its functional life. Similar to the marine grade aluminum 5052-H32 the Aluminum 6061-T6 also has Magnesium in it.

Why does ClimateCraft use one type of Aluminum for the base and a different type for the panels? It comes down to formability vs. strength. Aluminum 5052-H32 is often used for panels, boat hulls, and medical devices where forming of the metal is more critical. Aluminum 6061-T6 is often found in aerospace, bridges, and structural applications do to it's strength characteristics.