



CASCADIA METALS

ALUMINUM

Cascadia Metals supplies Grade 5052 Aluminum to the metals marketplace. Aluminum is a silvery-white, soft, nonmagnetic, ductile metal and is the most widely used non-ferrous metal in the world.

Aluminum is almost always alloyed, which markedly improves its mechanical properties, especially when tempered. The main alloying agents are copper, zinc, magnesium, manganese, and silicon and the levels of these other metals are in the range of a few percent by weight. The strength and durability of aluminum alloys vary widely, not only as a result of the components of the specific alloy, but also as a result of heat treatments and manufacturing processes.

Grade 5052 Aluminum is comprised of 97.25% aluminum, 2.5% magnesium and 0.25% chromium. When magnesium is used as the major alloying element, the result is a moderate to high strength non-heat treatable aluminum alloy. 5052 is far stronger than the 1100 or 3000 series aluminums, yet forms with reasonable bend radii. Weldability is very good and 5052 has good resistance to corrosion, especially in salt-water / marine atmospheres

Product Benefits

Aluminum offers a number of benefits to the user. A few of these benefits include...

Light Weight – Aluminum's light weight, coupled with its high strength, enables manufacturers to trim precious ounces from their end products. Smaller, thinner components are attainable which many times equate to lower costs. In summary, Aluminum is a much lighter option than steel.

Corrosion Resistance – Aluminum alloys have a strong corrosion resistance, especially in salt-water and marine atmospheres.

Aesthetics – these alloys are available in a range of esthetically pleasing mechanical and chemical finishes. Further, Aluminum is preferred by designers because it has a more contemporary appearance and an authentic, natural feel.

Conductivity – common to all Aluminum alloys, they have low density and excellent thermal conductivity making them ideal for use in applications where heat is involved.



Workability – Aluminum alloys can be easily machined in hard temper with a better quality of finish as compared to other alloys. They can also be easily formed at room temperature, welded using conventional methods, and forged from 950°F down to 500°F.

ASTM Specifications

ASTM Designation B209 outlines the general requirements for Aluminum. Included in this specification are metal chemistry requirements, typical mechanical properties of various metallurgical grades.

End-Use Applications

5052 is widely used for cooking utensils, food processing equipment, storage tanks, truck and trailer components, mail boxes, aircraft components, electronic chassis, boat hulls, deck houses, hatch covers, pressure vessels, ladders, railings, frames, drip pans, tool boxes, truck bumpers, inner and outer body panels and components in truck and auto industries, kitchen equipment, decorative trim, architectural uses, signage applications, and any number of parts and application requiring strength and good formability at reasonable cost.

Contact your Cascadia Metals Sales Representative today to learn how Aluminum can satisfy your material needs.

