

ALUMINIUM FASTENING SOLUTIONS

A lightweight, corrosion-resistant material for fasteners

Aluminium has a wide array of desirable qualities such as high strength-to-density ratio, low magnetic permeability and excellent corrosion-resistance. It is a great option when high tensile strength is not a necessity.



Materials

Unisteel is able to work with various grades of aluminium alloys, including 2000 and 6000 series alloys that are either annealed (O), or solution treated and age hardened (T6):

2000 Series

Al2024-O
Al2024-T6

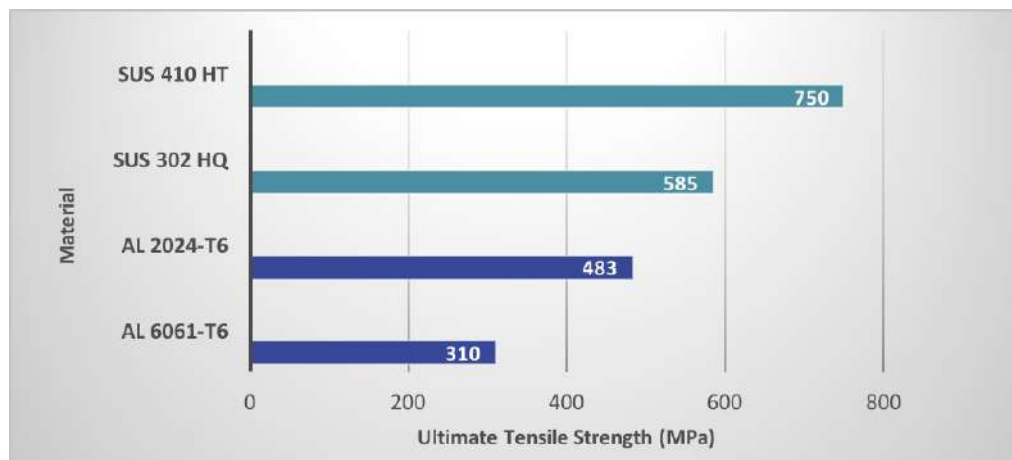
6000 Series

Al606-O
Al6061-T6

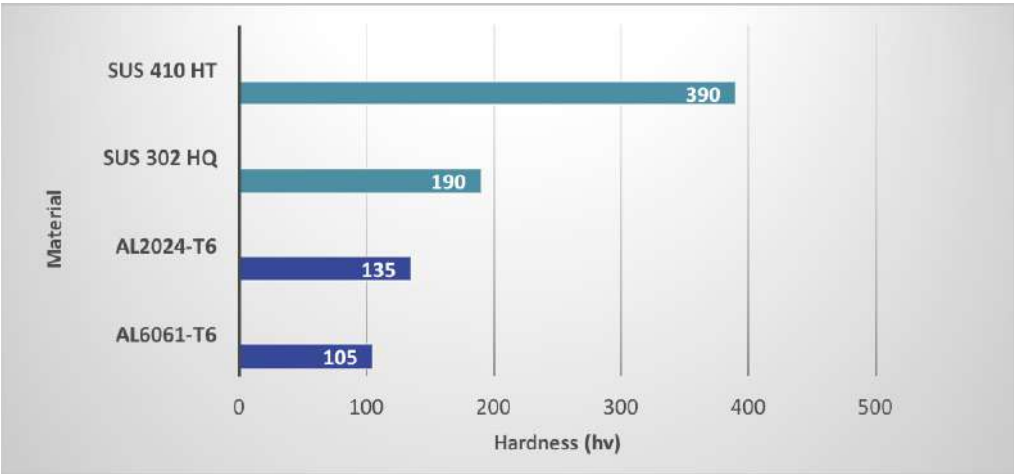
Features & Benefits

- Corrosion resistant
- Non-magnetic
- Biocompatible

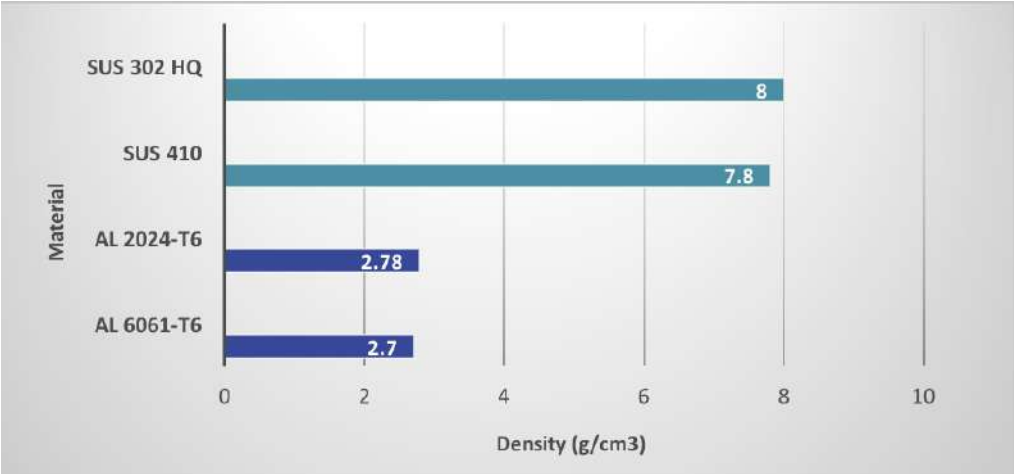
Tensile Strength



Hardness



Density



Applications

Screws



Stamped Parts



Machined Parts



Aluminium Screws

Head styles : Available in any head style

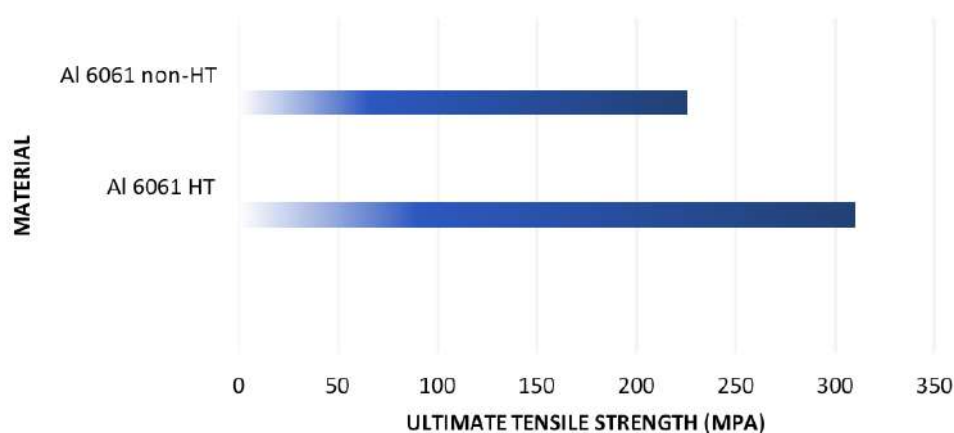
Recess styles : TORX® & TORX® PLUS

Size range : M0.8 – M5.0. Other sizes are available upon request

Manufacturing Capabilities

Unisteel has developed the capability to produce screws via cold forging of aluminium wire, which reduces production cost significantly compared to machining. Post-production operations such as heat treatment and anodization can be carried out to improve the screws' mechanical properties and appearance respectively upon customer requirement.

Strengths of aluminium screws can be improved via solution heat treatment and age hardening:



Aluminium screws can be anodised to achieve different colours for cosmetic, corrosion resistance and identification purposes:

