



## Datasheet

### **6063-T6 Round Aluminium Tube, 1m x 1/2in OD, 16SWG**

RS Stock number 304-7973

#### 6063 - T6 Extrusions

##### Aluminium Alloy 6063

Aluminium alloy 6063 is a medium strength alloy commonly referred to as an architectural alloy. It is normally used in intricate extrusions.

It has a good surface finish, high corrosion resistance, is readily suited to welding and can be easily anodised. Most commonly available as T6 temper, in the T4 condition it has good formability.

##### Applications

6063 is typically used in:

Architectural applications

Extrusions

Window frames

Doors

Shop fittings

Irrigation tubing

In balustrading the rails and posts are normally in the T6 temper and formed elbows and bends are T4. T4 temper 6063 aluminium is also finding applications in hydroformed tube for chassis.

##### Aluminium Alloy 6063A

Aluminium alloy 6063A is a variation of 6063 with greater strength but retains the same good surface finish qualities and affinity for anodising.

##### Applications

6063A is used in the same applications as 6063. It is also used in:

Road transport

Rail transport

Extreme sports equipment

## Temper Types

The most common tempers for 6063 aluminium are:

- O - Soft
- T4 - Solution heat treated and naturally aged to a substantially stable condition
- T6 - Solution heat treated and artificially aged

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## Supplied Forms

Alloy 6063 is supplied as standard extrusions including tee, channel, angle and flat bar as well as box section and tube

- Extrusions
- Tube
- Bar
- Rod

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## Weldability

Alloy 6063 is suitable for all conventional welding methods.

Welding wire generally should be alloy 5183 or alloy 4043.

When maximum electrical conductivity is required use alloy 4043.

For strength and conductivity use alloy 5346 and increase the size of the weld to compensate for the lower conductivity.

Weldability – Gas: Good

Weldability – Arc: Very Good

Weldability – Resistance: Good

Brazability: Very Good

Solderability: Good

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## Fabrication

Workability – Cold: Average (Acceptable)

Machinability: Good