

6082 Aluminium Extrusions

Smiths Profiles

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High strength with lower ductility

A strong alloy with high strength and excellent corrosion resistance - ideal for structural applications.

Known in commercial terms as a structural alloy, 6082 aluminium is a medium strength alloy that offers excellent corrosion resistance. Our product offers the highest strength of all 6xxx series aluminium alloys and is the most commonly machined material too.

The strength of the material is a direct result of the introduction of a large amount of manganese which controls the grain structure, increasing overall strength as a result. This improved strength has resulted in the decline in the use of 6061 in favour of alloy 6082.

A few limitations exist - 6082 aluminium is unlikely to produce more intricate and complicated extrusions with thinner walls. The extruded surface is not as smooth as either compared to other 6xxx series extruded products.

However, the strength of the material combined with excellent resistance to corrosion and good machinability makes it an ideal extruded product for structural applications.

6082 extrusions are available in T6, O, T4 and T651 tempers.



Commercial Applications

The alloy is used commonly in structural and load bearing applications such as bridges, cranes, roof trusses and other highly stressed applications.

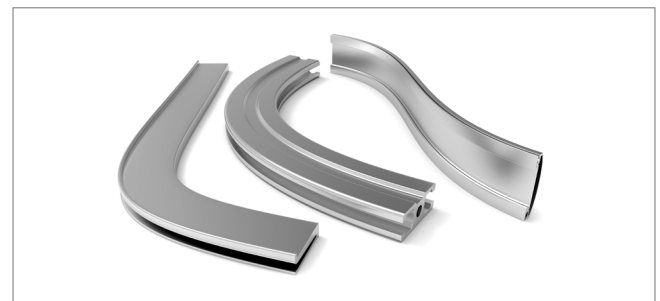
About Smiths Profiles

Smiths Profiles is based in Cheltenham, Gloucestershire and is backed up by the resources of its parent company, Smiths Metal Centres, which has a network of 13 distribution centres across the UK.

We will supply your extruded product taking into account the design and application required with one single objective - to meet your requirements in the most cost efficient way.

Key Features:

- Medium strength alloy
- Excellent corrosion resistance
- Highest strength of all 6xxx series alloys
- Good machinability
- Ideal for structural applications



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Quality Management

Smiths Profiles operate an **ISO 9001 approved** quality management system. Our quality management system (QMS) is fully embedded in our industry-leading bespoke IT platform.