

# 2219 Aluminium Bar

Smiths Advanced Metals

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## For High Temperature Applications

2219 is an age hardenable heat treatable alloy

2219 aluminium finds frequent use in high-temperature applications where welding is a requirement.

The alloy offers high fracture toughness and stress corrosion resistance. High strength after heat treatment is achieved at the expense of lower ductility.

The material is ideal for structural applications and offers suitability in various metalworking processes including forming, machining and cold working.

We stock 2219 aluminium bars available in a wide range of sizes and tempers (including T8511 temper).

## Grades / Specifications

- AMS4162
- ASTM B211
- ASTM B221

## Cut to bespoke shape service:

We offer a comprehensive billeting services using a range of modern processing equipment. Bars are cut to tight tolerances which often negates the need for further cutting which may save our customers time and money.

## Technical sales support:

To find out more about the [2219 aluminium bar](#) and for other technical advice, contact Smiths Advanced Metals today. We provide additional technical support via our [UKAS Accredited Testing Laboratory](#).



## Key Applications

- Aerospace structural components
- Fuel tanks
- Space structural components

## Benefits

- Good fracture toughness
- High-temperature range from 452°F to 600°F
- Lowest electrical conductivity in 2xxx series

## Chemical Composition (weight %)

	Si	Fe	Cu	Mn	Mg	Zn	Ti	V	Zr	Others (ea)	Others (total)	Al
min.			5.80	0.20			0.02	0.05	0.10			Rem
max.	0.20	0.30	6.80	0.40	0.02	0.10	0.10	0.15	0.25	0.05	0.15	

## Mechanical Properties (bar/extrusions - typical)

Temper	Direction	Tensile Strength (ksi)	Yield Strength (ksi)	Elongation in 2" (%)
T8511	L	58	42	6
T8511	LT	56	39	4

Properties as per AMS 4162

## Physical Properties

Density	2.84 g/cc
Melting Range (°C)	543 - 643
Electrical Resistivity	5.7e-006 ohm-cm
Thermal Conductivity	120 W/m-K
Modulus of Elasticity	73.1 GPa

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