

### Aerospace Steel Bar

#### Product Description

BS S98 aerospace steel bar is suitable for applications where tensile and yield strength requirements are higher than S96 and S97. The material is a particularly suitable where surface pressure exists. Classed as a high hardenability steel, S98 aerospace bar (which is an equivalent of EN26), offer a combination of high strength and toughness and works well in high temperature service applications. The alloy is used in a wide range of industry applications including aerospace, motorsport and oil & gas.

#### Availability

Bar

#### Typical Applications

- Hydraulic shafts
- Torsion bars
- Axles
- Connecting rods
- Sockets
- Spindles

#### Key Features

- Hardenability steel
- Higher tensile and yield strength when compared to S96 & S97
- Good creep resistance and toughness
- Supplied annealed and bright annealed
- Wide range of applications

#### Chemical Composition (weight %)

| Weight (%) | C    | Si   | Mn   | P     | S     | Cr   | Mo   | Ni  | Al    |
|------------|------|------|------|-------|-------|------|------|-----|-------|
| Min        | 0.36 | 0.10 | 0.45 |       |       | 0.50 | 0.45 | 2.3 | 0.015 |
| Max        | 0.44 | 0.35 | 0.70 | 0.025 | 0.020 | 0.80 | 0.65 | 2.8 | 0.050 |

#### Mechanical Properties

| Grade | Treatment           | Tensile Strength (Rm)<br>(min) | Proof Stress Rp 0.2, | Elongation<br>(%) (min) | Hardness<br>(HB) | Hardness<br>(HV) |
|-------|---------------------|--------------------------------|----------------------|-------------------------|------------------|------------------|
| 3S98  | Solution Annealed   | -                              | -                    | -                       | 277 max          |                  |
| 2S98D | Hardened & Tempered | 75-85 tons / sq in             | 65 tons / sq in      | 10                      | 341-388          | 360-410          |

#### Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

#### UK Service Centres:

Smiths Belfast **02895 908 897**  
 Smiths Biggleswade **01767 604 704**  
 Smiths Birmingham **0121 728 4940**  
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#### Quality & Testing:



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