

# Alloy 440C

## Product Datasheet



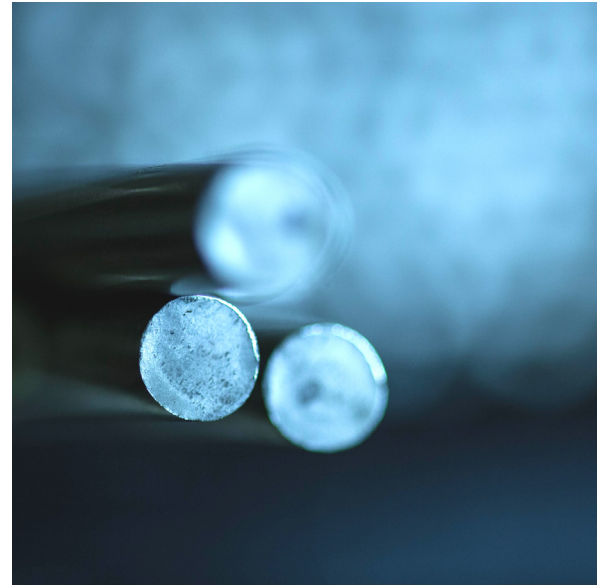
Stainless Steel

Service. Quality. Value.

### Martensitic Stainless Steel

Alloy 440C has the highest carbon content of all 440 series stainless steel and is more readily available than 440B.

The product is highly suitable for use in applications where greater strength and moderate corrosion resistance is a consideration. Although the alloy has a higher carbon content, there is enough chromium content to retain the materials stainless steel characteristics. Once heat-treated, 440C achieves the highest hardness and wear resistance of any stainless steel currently available. It is particularly suited to applications such as valve parts and bearings. Alloy 440C is relatively easy to machine in the annealed condition. Machining of the alloy is much more difficult when hardened. The manufacturing specification for Alloy 440C is AMS A276.



#### Key Features

- The hardest stainless steel after heat-treatment
- Moderate wear resistance
- Higher strength
- Higher carbon content

#### Applications

- Bearings
- Valve parts
- Bushings
- Structural aircraft parts

#### Chemical Composition (weight %)

	C	Mn	P	S	Si	Cr	Mo
Min	0.95					16.0	
Max	1.20	1.0	0.04	0.03	1.0	18.0	0.75

#### Mechanical Properties (bar - up to 100mm dia or thickness)

Tensile Strength	Proof Stress	Elongation A50 mm
758 - 2030 MPa	448 - 1900 MPa	4 - 14%

Hardness in the supply condition	-	269 HBW (28 HRC) max Hot-finished
	-	285 HBW (30 HRC) max Cold-finished
Hardness after heat-treatment	-	58 HRC min

#### UK Service Centres:

Smiths Belfast	02895 908 897	Smiths Leeds	0113 307 5167
Smiths Biggleswade	01767 604 704	Smiths Manchester	0161 794 8650
Smiths Birmingham	0121 728 4940	Smiths Norwich	01603 789 878
Smiths Bristol	0117 971 2800	Smiths Nottingham	0115 925 4801
Smiths Chelmsford	01245 466 664	Smiths Redruth	01209 315 512
Smiths Gateshead	0191 469 5428	Smiths Verwood	01202 824 347
Smiths Horsham	01403 261 981	Main Office	0845 527 3331

#### Quality & Testing:



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