

Alloy 440B

Product Datasheet



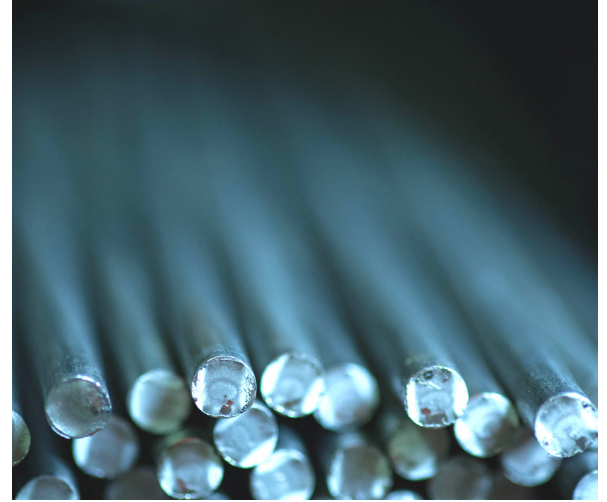
Stainless Steel

Service. Quality. Value.

Offering Excellent Hardness

With performance behaviour similar to tool steel, Alloy 440B offers excellent hardness after heat treatment.

It is a high carbon, martensitic stainless steel product with good overall strength and moderate corrosion resistance in the hardened and tempered condition. The alloy must be free of scale and foreign particles if optimum corrosion resistance is to be achieved. 440B annealed product also offers similar machining characteristics when compared with high speed annealed steel grades. With such excellent hardness, the alloy also promotes good wear resistance. A hardness value of 60 HRC is achievable after heat treatment. The product is not recommended for use in temperatures above the respective tempering temperature as mechanical properties would be reduced. The manufacturing specification for Alloy 440B is ASTM A276.



We stock Alloy 440B in round bar, plate and sheet.

Key Features

- Excellent hardness
- Good wear resistance
- Good overall strength
- Similar in performance to tool steels

Applications

- Valve seats
- Cutting tools and knife blades
- Bearings
- Surgical instruments

Chemical Composition (weight %)

	C	Mn	P	S	Si	Cr	Mo	Fe	
Min	0.75					16.0			
Max	0.95	1.00	0.04	0.03	1.00	18.0	0.75	Bal	

Mechanical Properties

Temp °C	0.2% Yield N/mm ²	Elongation (50.8mm) %	Reduction of Area
20	1860	3	15

Hardness in the supply condition	-	269 HBW (28 HRC) max Hot-finished
	-	285 HBW (30 HRC) max Cold-finished
Hardness after heat-treatment	-	56 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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