

# 440C Stainless Steel

Smiths High Performance



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## Offering the highest carbon content.

Although 440C has the highest carbon content, the alloy retains its status as a stainless steel alloy thanks to the chromium content in the material composition.

As a commercial engineering material, 440C stainless is more readily available than 440B - the material benefits from high strength and hardness combined with medium wear resistance.

After heat treatment, 440C is the hardest stainless steel available. Other popular grades in this series include 440A, which offers superior toughness, while 440F is a free machining option.

The alloy finds suitability in various commercial engineering applications for markets from general engineering and fabrication to aerospace and motorsport.

### Machining:

The alloy is straightforward to machine once annealed, although a suitable chip breaker will be needed. Once hardened, any machining operations are pretty much impossible. 440C should not be used in heat-resistant applications above the alloy's tempering temperature.

### Product Benefits:

- High strength
- High hardness
- Medium wear resistance
- Hardest stainless after heat-treatment
- Moderate corrosion resistance

### About Smiths High Performance

Smiths High Performance is a leading stockholder and supplier of high-performance engineering materials. We are material supply chain partners supporting high-technology market sectors.



### Motorsport Applications:

- Valve parts
- Bushes
- Bearings
- Pressure relief valves



SCAN ME

Further technical data available on  
the reverse of this Datasheet

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## \* Chemical Composition (weight, %)

		C	Mn	P	S	Si	Cr	Mo	
	Min:	0.95					16.00		
	Max:	1.20	1.00	0.04	0.03	1.00	18.00	0.75	

\* Properties as per ASTM A276

## \* Mechanical Properties

Condition	Value
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

\* Properties as per ASTM A276

## ...where performance matters...

When you purchase high-performance materials from **Smiths High Performance**, you will join some of the biggest and best global engineering companies. We are a Tier 1 supply chain partner to the world's leading motorsport companies. Our unique business structure and ethos allow us to offer services otherwise unavailable in this market sector.

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