9310

Smiths Advanced Metals

Case Hardening Steel

Premium quality carburising steel alloy.

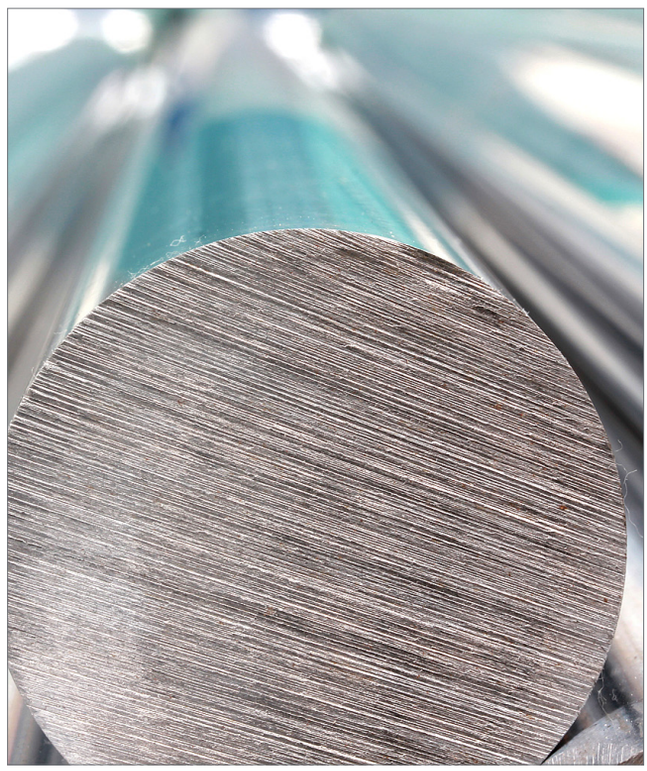
Alloy 9310 combines high fatigue strength with high core hardness.

The low alloy product offers high hardenability and is particularly useful in high core strength applications, especially in aerospace.

9310 is a nickel-chromium-molybdenum alloy that offers good strength and toughness. The material is suitable for machining in the normalised, tempered state. The performance characteristics of the alloy improve further after annealing with better ductility and machinability. 9310 also promotes excellent transverse properties.

The product finds use in engineering applications such as aircraft and helicopter parts, clutches, heavy-duty gears and shafts.

Smiths Advanced Metals stocks 9310 steel bars in the normalised and tempered condition and in closer incremental sizes to suit your particular engineering requirements.



Grades / Specifications

- 299-947-032
- AMS6260
- AMS6265
- AMS6267
- MIL-S-7393
- UNS G93100

Benefits

- Excellent transverse properties
- High hardenability
- High fatigue strength
- For high core strength applications

*Chemical Composition (weight %)

	C	Cr	Mn	Mo	Ni	P	S	Si	Cu	B
min.	0.07	1.00	0.40	0.08	3.00			0.15		
max.	0.13	1.40	0.70	0.15	3.50	0.015	0.015	0.35	0.35	0.001

* As per AMS 6265

*Mechanical Properties

Bars under 0.5”	
Tensile Strength	125 ksi max
Hardness	262 HBW max
Bars under 0.5”	
Hardness	248 HBW max

About Carburising

Carburising is a type of heat treatment process performed on low carbon steels to enhance the alloy’s strength, hardness, and wear characteristics.

Treatment time and temperature dictate how much carbon is absorbed by the steel and how hard, strong and wear-resistant the resultant alloy will be.

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