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440C Stainless Steel Round Bar

Hardenable Bearing and Wear-Resistant Stainless • UNS S44004

440C stainless steel is a high-carbon martensitic chromium steel selected for hardness and wear resistance after suitable hardening and tempering. It is used in bearing and wear components where dimensional control and post-heat-treatment grinding deserve special attention.

MATERIAL SPECIFICATIONS

Property / designation	Reference data / purchase requirement
UNS grade	S44004
Related European designation	EN 1.4125 (approximate; verify specification)
Relevant bar standards	ASTM A276 and applicable AMS requirements
Carbon (C)	0.95–1.20 wt%
Chromium (Cr)	16.00–18.00 wt%
Molybdenum (Mo)	0.75 wt% maximum (Carpenter reference)
Manganese (Mn)	1.00 wt% maximum
Typical hardened capability	Approximately HRC 60 (condition-dependent)
Service note	Heat treatment and temper affect corrosion resistance

SELECTED APPLICATIONS

Bearings and wear rings • Precision shafts, bushings and tooling parts • Hard-wearing mechanical components

GRADE SELECTION & FINISHING

440C is not interchangeable with 416 or 420 merely because all are martensitic stainless steels. Carbon content, attainable hardness, toughness, corrosion behavior and machining difficulty differ; choose a grade using both operating conditions and finishing allowances.

Agree heat-treat condition and final OD before selecting grinding stock allowance. Inspect roundness, taper and surface integrity after finish grinding; straightness and long-bar handling are separate controls.

INFORMATION FOR A QUOTE

Provide 440C grade/standard, delivery or hardened condition, target hardness, finished OD, straightness, length, finish, and certification requirements.

Material: material/567-2/

Technical source: Carpenter Technology, CarTech 440C alloy data

Reference values only; the specified product standard, material condition and mill test report govern.

Not a mill test report or stock availability guarantee. Confirm actual heat, condition and specification.