

ASTM A193 B7 ROUND BAR SPECIFICATIONS

GENERAL CHARACTERISTICS

The A193 Grade B7 Round Bars are available in metric and imperial diameters with heat-treated chamfered or plain ends. As requested by the customer, B7 round bars can be delivered in fixed or random lengths. For [ASTM A193 B7 Round Bars](#), the size can be controlled to the required tolerance. These circular bars can be straight-cut to size and roll-threaded for the precise specifications of the stud bolts. Discover details on the chemical composition of ASTM A193 Grade B7, as well as mechanical characteristics including hardness, tensile strength, and yield strength, as well as surface coatings and dimension requirements.

MECHANICAL PROPERTIES OF ASTM A193 B7 ROUND BAR

Diameter (inches)	Minimum Tempering Temperature (°F)	Tensile Strength (KSI)	Yield Strength (KSI)	Elongation (%)	Hardness (HB max)
< 2.5	1100	125	105	16	321
2.5 - 4	1100	115	95	16	321
4 - 7	1100	100	75	18	321

Diameter (mm)	Minimum Tempering Temperature (°F)	Tensile Strength (MPA)	Yield Strength (MPA)	Elongation (%)	Hardness (HB max)
< M64	593	860	720	16	321
M64 – M100	593	795	655	16	321
M100 – M180	593	690	515	18	321

HEAT TREATMENT OF ASTM A193 B7 ROUND BARS

By quenching in a liquid media and tempering, B7 and B7M must undergo heat treatment. For B7M products, all machining and forming processes, including thread rolling and any type of cutting, must be completed before the final heat treatment, which may be the tempering operation if carried out at 1150 °F [620 °C] minimum. It is acceptable to prepare a surface for hardness testing, non-destructive testing, or ultrasonic bolt tensioning.

ASTM A193 B7 ROUND BAR CHEMICAL COMPOSITION

Designation		%C	%Si	%Mn	%S	%P	%Cr	%Mo
ASTM A193 B7	Min	0.37	0.15	0.65	--	--	0.75	0.15
	Max	0.49	0.35	1.10	0.040	0.035	1.20	0.25

For more details visit: [ASTM A193 B7 Round Bars Exporter](#)

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