Grade B7 Bolt Materials

Grade B7 is the most common grade of A193 B7 alloy steel bolt material that is regularly utilized within the construction industry. A193 B7 stud bolts are manufactured from chromium-molybdenum steel and are heat treated to provide increased strength and reliability. We offer these bolts in the following materials:

- Plain
- Plated
- Coated

B7 Bolt Coatings

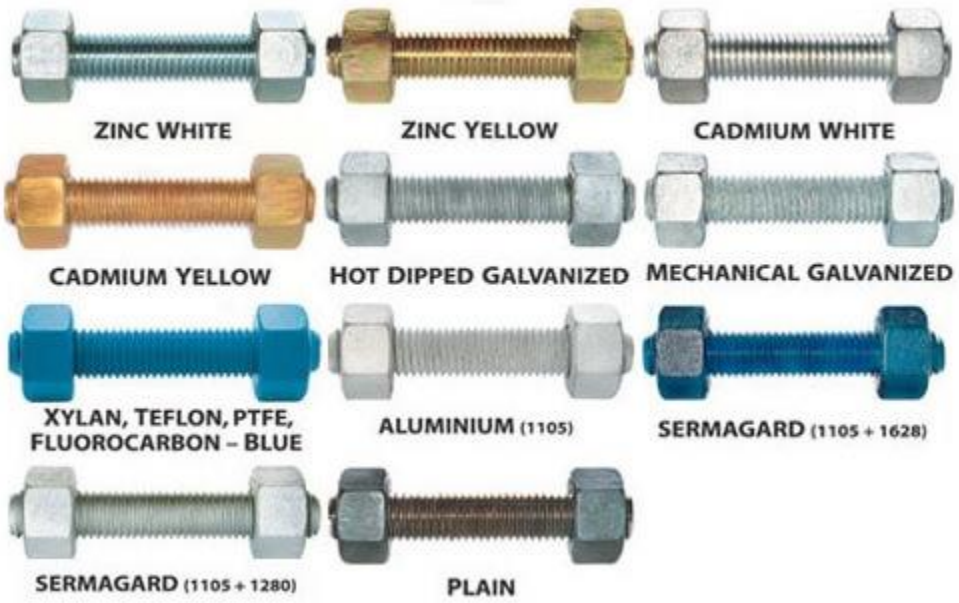
ASTM A193 B7 bolts can also be coated in a wide range of materials, including:

- Flouropolymer coatings - Xylan and Teflon
- Molybdenum Disulfide
- Epoxy Coatings - Thermal cure
- Phosphate coating - Manganese and Zinc

In addition, coated grade b7 bolts may not be able to withstand the extreme temperatures that uncoated b7 alloy steel bolts may be able to endure.

What is ASTM A-193?

The Association of Standards & Materials is a governance body that provides specifications for a wide range of materials and fastener types. They also define the policy that obtains and certifies externally threaded fasteners based on certain criteria. ASTM A193 also oversees specifications of bolting components within a wide range of assemblies, including pressure vessels, piping, valves and more. Additionally, they oversee the functioning capabilities, including the structural limits of fastener devices, which ensures safer job sites and work environments.



Galvanizing ASTM A193 B7 Bolts

A193 B7 stud bolts maintain a minimum tensile strength of 100 to 125 ksi. However, to avoid hydrogen embrittlement, increased tensile strength is required when galvanizing grade B7 bolt material. Therefore, it has been assessed that the minimum strength that is required of galvanized A193 B7 bolts, to avoid hydrogen embrittlement, is at least 177 ksi.

ASTM A193 B7 Stud Bolt Applications

Advanced strength a193 gr b7 stud bolts are highly regarded due to their numerous beneficial qualities. They are also used throughout a wide range of industries including various chemical, construction and petroleum field applications. More specifically, grade b7 bolts can be used to improve the following types of applications:

- Fittings
- Valves
- Pressure vessels
- Flanges
- Threaded rod
- And more