Reli-A-Pak® Bolt, Nut, & Gasket Sets by Reliable Fasteners, Inc.

ASTM A307

The ASTM A307 specification covers the chemical and mechanical requirements of carbon steel bolts and studs. A307 bolting meets ASME/ANSI B18.2.1 dimensions, and is available in diameters ranging from 1/4" to 4". There are three grades (A, B, and C) which denote tensile strength, configuration, and application.

Grades	
A	Low Carbon Steel Bolts and Studs Intended for General Applications
B	Low Carbon Steel Heavy Hex Bolts and Studs Intended for Flanged Joints in Piping Systems with Cast Iron Flanges
C	Replaced by Specification F 1554 Gr.36 in August 2007

Mechanical Properties									
Grade	Size	Tensile, psi, min	Yield, psi, min	Elong, %, min	Rockwell Hardness		Brinell Hardness	
A	1/4" – 4"	60,000	--	18	B69	B100	121	241
B	1/4" – 4"	60,000 – 100,000	--	18	B69	B95	121	212

Tensile Strength: The maximum load in tension (pulling apart) that a material can withstand before breaking or fracturing.
Yield Strength: The maximum load at which a material exhibits a specific permanent deformation
Proof Load: An axial tensile load that the product must withstand without evidence of any permanent set.
Elong, %, min stands for Elongation in 2", min, %

Recommended Nuts & Flat Washers			
Nuts for A307 Gr. A		Nuts for A307 Gr. B	Washers
1/4" - 1-1/2" A563A Hex	1-5/8" – 4" A563A Heavy Hex	1/4" – 4" A563A Heavy Hex	F844

Note: SAE J429 Gr.2 is comparable to A307 Gr.A

This is only a partial description of this specification, and should not be used as the only source of data. For complete and up to date information, consult the current version of this specification.