



1651 Atlantic St
Union City, CA 94587
510-293-0101

Anchor Bolts ASTM F1554 Gr. 105

SUBMITTAL SPECIFICATIONS

Abstract of ASTM F1554-07A

Material Grade: Alloy, Heat Treated, High Strength, 105 Ksi Yield

Chemical Requirements (%)

Phosphorous (max): 0.040

Sulfur (max): 0.050

Copper (min)*: 0.20

*When Specified

Mechanical Requirements

SIZE IN INCHES	TENSILE KSI	YIELD(MIN) KSI	ELONGATION IN 2 IN. MIN (%)	ELONGATION IN 8 IN. MIN (%)	REDUCTION OF AREA MIN (%)
1/4 TO 3	125-150	105	15	12	45
2-1/4 TO 2-1/2	75-95	55	21	18	22
2-3/4 TO 3	75-95	55	21	18	20
3-1/4 TO 4	75-95	55	21	18	18

Identification Marking: Color Code Red

-Color coding is required unless the grade is stamped in accordance with supplemental req.(S3)

-Stamping of F1554 bolts with manufacturers identification is a supplemental requirement (S2)

Recommended Hardware:

SIZE INCHES	PLAIN NUTS	HDG NUTS	WASHERS
1/4 TO 1-1/2	A563A D HVY HEX	A563A DH HVY HEX	F436
1-3/4 TO 3	A563A DH HVY HEX	A563A DH HVY HEX	F436

The availability of A563 grade DH nuts are limited and generally available only. For smaller quantities, ASTM A194 Grade 2H should be considered.

Supplementary Testing:

Supplementary requirements shall apply only when specified in the purchase order or contract

S1: Weldable version of the Grade 55 specification. Through chemical composition restrictions and by a carbon equivalency formula, S1 provides assurance of weldability. When S1 is not specified, the Grade 55 material may or may not be weldable.

S2: Permanent manufacturer's identification on the end of the anchor bolt that projects from the concrete.

S3: Permanent grade identification on the end of the anchor bolt that projects from the concrete in lieu of color coding. AB55 for Grade 55.

S4: Charpy Impact requirements at +40°F (+5°C) for grades 55 and 105. The minimum Charpy V-notch energy requirement is an average of 15ft-lbs for three specimens, with no one specimen falling below 12ft-lbs. Charpy Impact requirements at -20°F (-29°C) for grade 105. The minimum Charpy V-notch energy requirement is an average of 15ft-lbs for three specimens, with no one specimen falling below 12ft-lbs.