

ASTM A182 – Forged or Rolled Alloy and Stainless Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High Temperature Service

Grade: F60 (ferritic-austenitic stainless steel)

UNS number: S32205

Chemical Requirements, max , %

C: ≤ 0.030

Mn: ≤ 2.00

P: ≤ 0.030

S: ≤ 0.020

Si: ≤ 1.00

Cr: 22.0-23.0

Ni: 4.5-6.5

Mo: 3.0-3.5

N: 0.14-0.20

Heat treatment

Solution treat and quench: ≥ 1020 °C

Cooling media: liquid

Quenching cool below 260°C

Tensile Requirements

Tensile Strength: ≥ 655 MPa

Yield Strength: ≥ 450 MPa

Elongation 2 in. or 50 mm (or 4D): $\geq 25\%$

Reduction of Area: $\geq 45\%$