A 350 Grade LF2 ASTM A350 (USA)

Standards

ASTM A350	Standard Specification for Carbon and Low-Alloy Steel Forgings, Requiring Notch Toughness Testing for Piping Components

Chemical composition

C	< 0.3	**Si**	0.15 - 0.30	**Mn**	0.60 - 1.35	**P**	< 0.035
S	< 0.04	**Cr**	< 0.3	**Mo**	< 0.12	**Ni**	< 0.4
V	< 0.08	**Nb**	< 0.06	**Cu**	< 0.4	**Fe**	Rest
CE	< 0.48						

CE = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15
Heat analysis: Cu + Ni + Cr + V + Mo < 1.00; Cr + Mo < 0.32
Thickness less than or equal to 2 in : CE < 0.47
Nb > 0.02: by agreement

Properties

By ASTM A350

Class 1

HB: after heat treatment

Yield Strength: > 250 MPa
Tensile Strength: 485 - 655 MPa
Elongation: > 22 %
Hardness HB: < 197
Reduction of area: > 30 %
Impact energy KV -50°F [-45°C]: > 16 J

Class 2

HB: after heat treatment

Yield Strength: > 250 MPa
Tensile Strength: 485 - 655 MPa
Elongation: > 22 %
Hardness HB: < 197
Reduction of area: > 30 %
Impact energy KV 0°F (-17.8°C): > 20 J