



## Inconel 718

Henan Sheng He Pipe Industry Co., Ltd., have an experience spanning for over ten years, producing and supplying best-in-class products, minimize cost by getting manufacturing processes under one roof and delivering consignments on a daily basis only because of a diligent and dedicated team. We are manufacturers, suppliers and exporters of Inconel 718 material.

**Common Trade Names:** Inconel 718, Nicrofer 5219, Alvac 718, Haynes 718, Altemp 718

Inconel 718 is a precipitation hardenable nickel-based alloy designed to display exceptionally high yield, tensile and creep-rupture properties at temperatures up to 1300°F (704°C). The age-hardening response of Inconel 718 permits annealing and welding without spontaneous hardening during heating and cooling. Nickel Alloy 718 has excellent weldability when compared to the nickel-base super alloys hardened by aluminum and titanium. Nickel Alloy 718 is used in aircraft engine parts and high-speed airframe parts such as wheels, buckets, spacers, and high temperature bolts and fasteners.

### Inconel 718 Available Formats

Henan Sheng He Pipe Industry offers nickel alloy Inconel 718 in a variety of forms, including:

- Bar
- Wire
- Sheet
- Plate
- forgings
- Pipe fittings
- Flanges
- Seamless & Welded pipe
- Seamless Tube & Welded tube
- Weld Rod



Nickel alloy Inconel 718 is usually provided in the solution annealed condition (AMS 5662 & AMS 5596), but can be also be supplied in the aged hardened or precipitation heat treated condition (AMS 5663 & AMS 5597) prior to forming.

Inconel 718 strip is available from .001" to .063" in 12" wide coils. 24" wide strip is available in some gauges. Minimum production quantities may apply.

Inconel 718 sheet is available from .012 - .156" thickness in 36" & 48" wide sheets.

Inconel 718 plate is available from .1875" thick to 4"

Inconel 718 tube is available in seamless and welded construction. Standard tube sizes are available, but we also can have small diameter tubes fabricated or re-drawn with close tolerances in small production runs.

While nickel alloy Inconel 718 pipe is generally not available from stock in many cases we can have pipe sizes fabricated, machined or drawn to order.

## **ASTM Specifications**

ASTM (American Society for Testing and Materials) for various products made out of Inconel 718 are as follow

| Pipe/Tube |          | Sheet/Plate | Bar  | Forging | Fitting | Wire                |
|-----------|----------|-------------|------|---------|---------|---------------------|
| AMS 5589  | AMS 5590 | B670        | B637 | 637     | -       | A5.14<br>ERNiFeCr-2 |

## **Chemical Composition, %**

| Ni          | Fe        | Cr          | Cu         | Mo        | Nb        | C          | Mn         |
|-------------|-----------|-------------|------------|-----------|-----------|------------|------------|
| 50.00-55.00 | Remainder | 17.00-21.00 | .30<br>max | 2.80-3.30 | 4.75-5.50 | .08<br>max | .35<br>max |
| P           | S         | Si          | Ti         | Al        | Co        | B          |            |
| .015 max    | .015 max  | .35 max     | .65-1.15   | .20-.80   | 1.00 max  | .006 max   |            |



**HENAN SHENG HE PIPE INDUSTRY CO., LTD**  
WEB: [WWW.SHPIPEINDUSTRY.COM](http://WWW.SHPIPEINDUSTRY.COM)  
TEL/WHATSAPP: 0086 - 18837185745

**Mechanical Properties - Typical room temperature properties,  
1800°F annealed condition**

| <b>Ultimate Tensile Strength, psi</b> | <b>.2% Yield Strength psi</b> | <b>Elongation %</b> | <b>Hardness Rockwell B</b> |
|---------------------------------------|-------------------------------|---------------------|----------------------------|
| 135,000                               | 70,000                        | 45                  | 100                        |