

321

Austenitic Grade

DESCRIPTION:

321 is an austenitic stainless steel that is similar to 304 in corrosion resistance and weldability. 321 is harder to form than most austenitic grades because of its spring back effect. The benefit of 321 is that it has added titanium of five times the carbon content, which prevents or reduces carbide precipitation during welding. This alloy is generally used in high-temperature applications.

APPLICATIONS:

- High Temperature applications
- Chemical Processing
- Aircraft engines
- Oil and Gas
- Expansion joints

CHEMICAL COMPOSITION:

| | |
|------------|-------------|
| Carbon | 0.08 max |
| Chromium | 17.0 – 19.0 |
| Nickel | 9.0 – 12.0 |
| Titanium | 0.70 max |
| Manganese | 2.0 max |
| Silicon | 0.75 max |
| Phosphorus | 0.04 max |

MECHANICAL PROPERTIES:

| | |
|------------------|---------------|
| Yield Strength | 30 KSI min |
| Tensile Strength | 75 KSI min |
| Elongatin | 40% |
| Hardness | 95 Rockwell B |

STAINLESS STRUCTURALS CAN PRODUCE THIS ALLOY IN BEAMS, CHANNELS, ANGLES, TEES AND CUSTOM SHAPES.

Disclaimer:

The information on the stainless alloy data sheets are accurate to the best of our knowledge, but are intended for general information only. Applications suggested for the different alloys are listed only to help our customers make their own decisions. These are neither guarantees nor warranties on material uses. Data referring to chemical composition and mechanical properties are industry norms at the typical state of the alloys tested. These properties can change in different environments, temperatures, applications and so forth. Stainless Structural assumes no responsibility or liability for the information given.

