

# 2304

Duplex Grade

## DESCRIPTION:

2304 duplex stainless is an enhanced duplex with high contents of chromium and nitrogen but low content of nickel. 2304 has similar corrosion resistance as 304/L and 316/L but has double the yield strength and better stress corrosion resistance than these austenitic grades. 2304 duplex should not be used in temperatures below -50°C or above 250°C due to the risk of embrittlement.

Some of the beneficial characteristics of 2304 include mechanical strength, machinability, weldability, corrosion resistance, ease of fabrication, reduced maintenance, and durability.

## APPLICATIONS:

- Pulp and Paper
- Food Processing
- Mining
- Pressure Vessels

## CHEMICAL COMPOSITION:

Carbon	0.03 max
Chromium	21.5 – 24.5
Nickel	3.0 – 3.5
Manganese	2.5 max
Silicon	1.0 max
Phosphorus	0.04 max
Molybdenum	0.05 – 0.60

## MECHANICAL PROPERTIES:

Yield Strength	65 KSI min
Tensile Strength	110 KSI min
Elongation	30%
Hardness	293 Brinell Max

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.

