

## AISI 1.4003 Stainless Steel Sheet Plate

### General Characteristics:

Type 1.4003 stainless steel is a utility ferritic stainless steel, often used in place of mild steel. It offers the benefits of more highly alloyed stainless steels such as strength, corrosion and abrasion resistance, durability and low maintenance. In addition type 1.4003 is weldable and formable allowing it to be fabricated using conventional techniques. Benefits of using type 1.4003 stainless steel:

- 250 times greater corrosion resistance than mild steel
- Corrosion/abrasion resistance
- Economical - Low initial cost, low maintenance
- High Strength Excellent impact resistance
- Can be welded by conventional methods
- Can eliminate need for protective coating
- Can eliminate need for corrosion allowance
- Proven success in many applications across a wide range of industries
- Good performance at elevated temperatures
- Lower cost than austenitic stainless

### 1.4003 Stainless Steel Sheet Plate Physical Properties:

Modulus of Elasticity (GPa)	Density (g/cm <sup>3</sup> )	Electrical resistivity (μΩm)	Thermal conductivity (W/m.K)	Co-efficient of Thermal Expansion (μ/K)
200	7.74	678	30.5	11.1-12.3

### SS 1.4003 Sheet Plate Chemical Properties:

Designation		%C	%Mn	%S	%P	%Si	%Ni	%Cr	%N	%Fe
EN 1.4003	Min	--	--	--	--	--	0.30	10.50	--	Balance
	Max	0.030	1.50	0.020	0.040	1.00	1.00	12.50	0.030	

### SS 1.4003 Sheet Plate Mechanical Properties:

Mechanical properties	UTS (MPa)	YS (MPa)	%EL
EN 1.4003	450-650 min	250-280 min	18-20 min

### Products available:

Hot Rolled Plates & Coil, Cold Rolled Coil & Sheets

### Applications:

1.4003 stainless steel is typically used in:

- Bulk wet materials handling
- Vehicle frames/chassis
- Rail car hoppers Sweeper and gritter vehicles
- Conveyors, chutes, screen, troughs
- Bunkers & hoppers
- Tanks & containers
- Chimneys & ducting

- Enclosures & cabinets
- Walkways, stairs & railings
- Cable trays

## Corrosion Resistance:

1.4003 stainless has 250 times the corrosion resistance of mild steels and is particularly good in corrosion/abrasion applications. Corrosion/Abrasion - The cycle of abrasive removal of a metal surface following surface corrosion rapidly erodes mild/carbon steels even when costly coatings are applied. In wet or damp conditions where abrasion is present type 4003 provides excellent performance by resisting corrosion attack and thus maintaining better flow and slideability compared to non-alloyed or low-alloy steels including abrasion resistant grades.

## Weldability:

Type 4003 has a fine-grained microstructure which reduces grain growth in the heat-affected zone (HAZ) and allow high integrity welds in section thicknesses up to 30mm. Suitable weld processes include SMAW, GTAW, FCAW, PAW, Laser, Spot and Seam. Design and welding procedure consideration must be taken to avoid sensitization occurring in service.

## Strength & Stiffness:

Type 4003 offers higher strength than, and equal structural stiffness to, mild steels such as BSEN10113 Grade Fe430A (ASTM A36). It also offers greater impact and energy resistance than aluminium. It behaves much like austenitic steel in that it gradually yields and does not show a definite yield point.

**For more details visit : [Stainless Steel 1.4003 Sheets Plate Stockist](#)**

### **Related Searches:**

**en 1.4003 chemical composition pdf**  
**en 1.4003 sheet plate dimensions**  
**en 1.4003 stainless steel**  
**en 1.4003 sheet plate weight**  
**en 1.4003 sheet plate price**  
**en 1.4003 equivalent**  
**en 1.4003 sheet plate specification**