

# Stainless Steel

## 1.4512 Sheet



Amari ireland Ltd

### SPECIFICATIONS

Commercial	409
EN	1.4512

Grade 409 / 1.4512 titanium stabilised ferritic stainless steel is often referred to as 'muffler grade stainless steel' since the major bulk usage of this material is for automotive exhaust systems.

### CHEMICAL COMPOSITION

EN 10088-2:2005 1.4512 Steel	
Element	% Present
Chromium (Cr)	10.50 - 12.50
Silicon (Si)	0.0 - 1.00
Manganese (Mn)	0.0 - 1.00
Titanium (Ti)	0.0 - 0.65
Carbon (C)	0.0 - 0.30
Phosphorous (P)	0.0 - 0.04
Sulphur (S)	0.0 - 0.02
Iron (Fe)	Balance

### SUPPLIED FORMS

Grade 409 / 1.4512 is a rolled product (sheet, coil and strip) material usually available up to a maximum of 2.5mm thickness.

Grade 1.4003 is similar though not a direct equivalent but is available in thicker sheets and plates.

- Sheet

### GENERIC PHYSICAL PROPERTIES

Property	Value
Density	7.6 g/cm <sup>3</sup>
Modulus of Elasticity	208 GPa
Thermal Conductivity	25.8 W/m.K
Electrical Resistivity	0.6 x10 <sup>-6</sup> Ω .m

### MECHANICAL PROPERTIES

EN 10088-2:2005  
Sheet  
Up to 8mm Thick

Property	Value
Proof Stress	210 Min MPa
Tensile Strength	380 - 560 MPa
Elongation A50 mm	25 Min %

### WELDABILITY

Weldability of grade 409 is good up to about 2.5mm thick.

If welding of thicker material is necessary, then grade 1.4003 should be selected.

### CONTACT

**Address:** Please make contact directly with your local service centre, which can be found via the Locations page of our web site.  
**Web:** [www.amari-ireland.com](http://www.amari-ireland.com)

### REVISION HISTORY

Datasheet Updated 13 March 2020

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