Stainless Steel
1.4512 Sheet

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)	10.5 - 12.5
Manganese (Mn)	1 max
Silicon (Si)	1 max
Titanium (Ti)	0.65 max
Carbon (C)	0.3 max
Phosphorous (P)	0.04 max
Sulphur (S)	0.02 max
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/cm³
Modulus of Elasticity	208 GPa
Thermal Conductivity	25.8 W/m.K
Electrical Resistivity	0.6 x10^{-6} 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.aalco.co.uk

REVISION HISTORY

Datasheet Updated 13 March 2020

DISCLAIMER