

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

<i>EN 10088-2:2005 1.4512 Steel</i>	
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/cm ³
Modulus of Elasticity	208 GPa
Thermal Conductivity	25.8 W/m.K
Electrical Resistivity	0.6 x10 ⁻⁶ Ω .m

MECHANICAL PROPERTIES

<i>EN 10088-2:2005 Sheet Up to 8mm Thick</i>	
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

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REVISION HISTORY

Datasheet Updated	13 March 2020
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Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

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