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Stainless Steel - 1.4509 (441) Sheet and Coil

SPECIFICATIONS

Commercial	441

Stainless steel producers have an ongoing programme of development designed to produce new grades.

These new grades are sometimes developed for specific end uses and sometimes to improve upon an existing grade.

Type 1.4509 spans both of these two areas since it was developed for a particular range of applications in certain industries where it can be used in place of type 1.4301 (304). On some aspects, its properties and performance in service are actually superior to 304 whilst on others it falls between 430 and 304. Notably however, it is also lower cost than 304.

Type 1.4509 can be referred to as a 'Super-Ferritic'
Features:
- Good for deep drawing
- Good weldability
- Good pitting corrosion resistance
- Good brightness
- Polishes well

Applications/Industries:
The main target sector is catering equipment to replace grade 304.

Availability:
- Thicknesses 0.5mm to 2.0mm
- Finishes bright annealed or polished

CHEMICAL COMPOSITION

EN 10088-2:2005 1.4509 Steel	
Element	% Present
Chromium (Cr)	17.50 - 18.50
Manganese (Mn)	0.0 - 1.00
Niobium (Columbium) (Nb)	0.0 - 1.00
Silicon (Si)	0.0 - 1.00
Titanium (Ti)	0.10 - 0.60
Phosphorous (P)	0.0 - 0.04
Carbon (C)	0.0 - 0.03
Sulphur (S)	0.0 - 0.02
Iron (Fe)	Balance

SUPPLIED FORMS

- Sheet
- Coil

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	7.70 g/cm³
Melting Point	1505°C
Thermal Expansion	11.0 x10^{-6} /K
Modulus of Elasticity	220 GPa
Thermal Conductivity	25.0 W/m.K
Electrical Resistivity	0.60 x10^{-6} Ω .m

MECHANICAL PROPERTIES

EN 10088-2:2005 sheet & plate up to 8mm thick	
Property	Value
Proof Stress	230 Min MPa
Tensile Strength	430 - 630 MPa
Elongation A50 mm	18 Min %

Properties above are for 1.4509 sheet/plate

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