

SPECIFICATIONS

Commercial 439

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 1.4510 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:

- ~ 1250mm & 1500mm wide
- ~ Thicknesses 0.5mm to 2.0mm
- ~ Finishes Bright Annealed or Polished

CHEMICAL COMPOSITION

EN 10088-2:2005
1.4510 Steel

Element	% Present
Chromium (Cr)	16 - 18
Manganese (Mn)	1 max
Silicon (Si)	1 max
Titanium (Ti)	0.5 - 0.8
Carbon (C)	0.05 max
Phosphorous (P)	0.04 max
Sulphur (S)	0.02 max
Iron (Fe)	Balance

ALLOY DESIGNATIONS

Stainless Steel Grade 1.4510 is similar to, **but may not be a direct equivalent to:**

Type 439

UNS S43035

Uginox F18TNb

Sometimes referred to as 430LX.

SUPPLIED FORMS

- Sheet
- Plate
- Tube

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	7.70 g/cm ³
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 13.5mm Thick

Property	Value
Proof Stress	230 Min MPa
Tensile Strength	420-600 MPa
Elongation A50 mm	23 Min %

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

This Data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

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

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.