

# Material Data Sheet

## 1.4410 (X2CrNiMoN25-7-4) Super Duplex

**Short description** 1.4410 is an austenitic-ferritic super duplex steel with excellent corrosion resistance and high strength and yield strength. Super duplex is used where conventional duplex steels (such as 1.4462) no longer meet the requirements.

<b>Standards and Designations</b>	EN	1.4410
	DIN	X2CrNiMoN25-7-4
	AISI	F53
	UNS	S32750

### Chemical Composition

	<b>C</b> (Carbon)	<b>Mn</b> (Mangan)	<b>Si</b> (Silicium)	<b>P</b> (Phosphor)	<b>S</b> (Sulfur)	<b>Cr</b> (Chrome)	<b>Mo</b> (Molybdenum)	<b>Ni</b> (Nickel)	<b>N</b> Nitrogen
min.	-	-	-	-	-	24,0	3,0	6,0	0,24
max.	0,03	2,0	1,0	0,035	0,015	26,0	4,5	8,0	0,35

<b>General Properties</b>	corrosion resistance	excellent
	mechanical properties	excellent
	weldability	good

**Special Features** Usable up to 250°C  
Ferromagnetic grade

**Corrosion resistance** 1.4410 is characterized by excellent pitting and crevice corrosion resistance in chloride-containing media and seawater. This grade is also resistant to intergranular corrosion – both in the as-delivered condition and after welding. (PREN = 37.7 – 46.4)

### Mechanical Properties at 20°C

Hardness HB	Yield strength Rp0,2 N / mm <sup>2</sup>	Tensile Strength Rm N / mm <sup>2</sup>	Stretching A5,65	Elastic modulus kN / mm <sup>2</sup>
≤ 290	≥ 530	730 - 930	≥ 25%	200

**Application areas** Apparatus and container construction, construction industry, chemicals, petrochemicals, desalination plants, food industry, mechanical engineering, marine technology, offshore, shipbuilding

#### BANKVERBINDUNGEN

OLDENBURGER VOLKSBANK  
 IBAN DE98 2806 1822 0065 3616 00  
 BIC GENODEF1EDE

LZO RASTEDE  
 IBAN DE07 2805 0100 0043 3308 93  
 BIC SLZODE22XXX

OLB RASTEDE  
 IBAN DE54 2802 0050 1443 1738 00  
 BIC OLBODEH2XXX

#### KONTAKT

Telefon +49 (0) 4402-9249-0  
 E-Mail [info@witte-tube.com](mailto:info@witte-tube.com)  
 Web [www.witte-tube.com](http://www.witte-tube.com)

#### FIRMENKENNUNG

Sitz Rastede || Tom Witte, Jörn Schieck  
 eingetr. im Handelsregister Oldenburg  
 HRB 205739 || VAT Nr. DE 277 933 982

Physical Properties at 20°C

Density kg/dm <sup>3</sup>	Electrical resistance (ohm) mm <sup>2</sup> /m	Magnetizability	Thermal conductivity W/m K	specific heat capacity J/kg K
7,8	0,8	vorhanden	15	500

Thermal treatment

Solution annealing (+AT)	1040 - 1120°C (cooling: water or air)
Hot forming	1200 - 1000°C

Notice

The values and information listed above regarding the properties and/or usability of the material are for informational purposes only. This information is based on the manufacturer's experience.

All information is provided without guarantee. Subject to printing errors, mistakes, and changes.

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 Telefon +49 (0) 4402-9249-0  
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