

Super Duplex Tubes from Stock

Super Duplex is a material with an approximate equal content of austenitic and ferrite. They are characterized by high Chromium and Molybdenum.

These combine excellent corrosion resistance with high strength. The mechanical properties are approximately twice as high as those of singular austenitic steel and the resistance to crevice corrosion and stress corrosion cracking is superior compared to the alloys TP316L, TP317L or Duplex 2205 in chloride solutions. At ambient and subzero (down to minus 50° C) temperatures its notch ductility is very good.

Chemical analysis
(heat analysis) of austenitic-ferritic steel grades, values in %

Short Name	Material No.	C max.	Si	Mn	P	S	N	Cr	Cu	Mo	Ni	Bal.
X2 CrNi-MoN	1.4410	0.030	≤ 1,00	≤ 1.00	0,035	0,015	0,24 - 0,32	24,00 - 26,00	-	3,50 - 5,00	6,00 - 8,00	-

Mechanical properties for wall thicknesses up to 30 mm in solution- annealed condition (+ OT) and details of resistance to intercrystalline corrosion.

Short Name	Material No.	Proof strength Rp 0,2 min. MPa	tensile strength Rm MPa	elongation A % min.		impact strength KV J min.			heat treatment condition	
				l	t	at RT		at -40° C		solution annealed temperature °C
X2 CrNiMoN	1.4410	550	800-1000	20	20	100	100	40	1000 - 1200	Air/ Water

Super Duplex is extremely mechanically resilient and has excellent corrosion resistance in sea water, so that this material is suitable for use in the most demanding applications in the oil and gas industry, chemical process industry as well as in desalination plants and geothermal applications.

In the event that the requirements of Vd - TÜV material data sheet 418 shall be fulfilled, an inspection certificate to EN 102.4/3.2. by a Third Party Inspection Company has to be issued. The material is difficult to be machined.

Dimensions available from stock

6,00	x	1,00	mm
8,00	x	1,00	mm
10,00	x	1,00	mm
10,00	x	1,50	mm
12,00	x	1,00	mm
12,00	x	1,50	mm
12,00	x	2,00	mm
15,00	x	2,00	mm
16,00	x	1,00	mm
16,00	x	2,00	mm
18,00	x	1,50	mm
18,00	x	2,00	mm
20,00	x	2,00	mm
25,00	x	2,00	mm

1/4"	x	0,035"	(6,35 x 0,89 mm)
1/4"	x	0,049"	(6,35 x 1,24 mm)
1/4"	x	0,065"	(6,35 x 1,65 mm)
3/8"	x	0,065"	(9,53 x 1,65 mm)
1/2"	x	0,035"	(12,70 x 0,89 mm)
1/2"	x	0,049"	(12,70 x 1,24 mm)
1/2"	x	0,065"	(12,70 x 1,65 mm)
3/8"	x	0,035"	(9,53 x 0,89 mm)
5/8"	x	0,083"	(15,88 x 2,11 mm)
3/4"	x	0,049"	(19,05 x 1,24 mm)
3/4"	x	0,065"	(19,05 x 1,65 mm)
3/4"	x	0,109"	(19,05 x 2,77 mm)
3/4"	x	0,125"	(19,05 x 3,18 mm)
1"	x	0,065"	(25,4 x 1,65 mm)
1"	x	0,083"	(25,4 x 2,11 mm)
1"	x	0,109"	(25,4 x 2,77 mm)

The standard of our stock material applies to:

EN 10216-5/11.2004 - TC 1 - ASME Section II - Part A - Edition 2010 - 2011a Add., SA789//ASTM A789/ 10a - NORSOK Standard M650/M630, Material Data Sheet D48 Rev. 3, NACE MR0175/ISO15156-3/2003

Tolerances:

EN ISO 1127 D4/T3 ASTM A789/ASME SA789



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