

1.4462 (X2CrNiMoN22-5-3)

Material Designation

1.4462	DIN
S32205 / F60	UNS
S31803 / F51	UNS

Standards

DIN EN 10088-3
 DIN EN 10250-4
 DIN EN 10272
 Norsok M-630
 ASTM A182/A182M
 ASTM A276/A276M
 ASTM A479/A479M
 ANSI/NACE MR 0103/ISO 17945
 ANSI/NACE MR 0175/ISO 15156-3

Chemical Composition Mass-%

	C	Si	Mn	P	S	Cr	Mo	Ni	N
min.	-					22,0	3,0	4,5	0,14
max.	0,03	1,00	2,00	0,025	0,015	23,0	3,5	6,5	0,20

Customer specific restrictions upon request

Properties

1.4462 is an austenitic-ferritic duplex steel with excellent corrosion resistance (PREN ≈ 35,5). It offers high yield and tensile strength and shows excellent resistance against stress corrosion cracking and pitting.

Delivery Condition

✘ solution annealed (+AT)

Application Area

Environments containing chloride media as well as sour gas applications.

Typical Applications

- ✘ Construction industry
- ✘ Off-shore and marine applications
- ✘ Chemical and petrochemical industry
- ✘ Pulp and paper industry

Mechanical Properties acc. to DIN EN 10088-3, longitudinal

Diameter [mm]	Yield strength [N/mm ²]	Tensile strength [N/mm ²]	Elongation [%]	Impact toughness [J] Charpy-V
≤ 160	≥ 450	650 - 880	≥ 25	≥ 100

acc. to ASTM A276/A276M

Diameter [mm]	Yield strength [N/mm ²]	Tensile strength [N/mm ²]	Elongation [%]	Red. Of Area
≤ 160	≥ 450 (65 ksi)	≥ 665 (95 ksi)	≥ 25	≥ 45

Heat Treatment Guideline Values

	Temperature [°C]	Cooling medium
Solution annealing (+AT)	1020 - 1100	Water, cool below 260 °C

Quality

- ISO 9001
- ISO 14001
- ISO 50001
- Approvals acc. to standards like ABS, BV, DNV ...
- Customer specific approval certificates

Innovation

- Fully automated ultrasonic testing up to dia. 1000 mm
- CO₂-reduction by innovative heat treatment solutions

Flexibility

- Product range from fine wire to forging
- Directly from stock close at hand

Individuality

- Dimensions
- Tolerances
- Surface qualities
- Delivery conditions

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