DUPLEX 1.4462

STRENGTH AT ITS BEST

VERBINDUNGEN, DIE HALTEN.
CONNECTIONS MADE OF STEEL.

ONE MATERIAL – MANY APPLICATIONS

Duplex belongs to the group of stainless and acid resistant steels and is divided into five groups from lean duplex to hyper duplex. Characteristic of duplex steels is the balanced austenitic-ferritic two-phase structure (ratio 50:50), where the positive properties of ferrites and austenites are combined here. Duplex steels have high strength – comparable to higher-strength structural steels.

Due to their high chromium content compared to pure austenitic steels and the low nickel content at the same time, duplex steels are more stable compared to nickel-containing products. A high number of applications is given by the high corrosion resistance and excellent mechanical properties.

THE WASI PRODUCT RANGE DUPLEX*

DIN 912	M6 to M16
DIN 931	M12 to M20
DIN 933	M6 to M24
DIN 934	M6 to M24
DIN 980	M6 to M24
DIN 976	M6 to M24
DIN 127	Ø6,1 to Ø24,5
DIN 125	Ø6,4 to Ø25,0
DIN 9021	Ø6,4 to Ø26,0
Anchor chains, form and design according to DIN 766	Ø6,0 bis Ø10,0

*Other dimensions on request

THE MATERIAL DUPLEX 1.4462 IS LISTED IN THE NATIONAL TECHNICAL APPROVAL Z-30.3-6.
Status March 2018, DIBt - Deutsches Institut für Bautechnik

YOUR ADVANTAGES

HIGH STRENGTH AND YIELD STRESS (MIN. CLASS 80)

SECOND HIGHEST CORROSION RESISTANCE CLASS (IV)
Higher than 316TI at comparable price level.

COST-EFFECTIVE
Compared to expensive materials such as 1.4529 or 1.4571.

STABLE IN PRICE

Material class	Corrosion resistance class
A1	I / low
A2	II / moderate
A3	II / moderate
A4	III / middle
A5	III / middle
Duplex	IV / strong

FIELDS OF APPLICATION

Duplex fasteners have properties that make them extremely interesting for many applications. This material is suitable for a wide range of fields such as chemical and paper industry, oil and gas industry, petrochemical industry, marine technology – such as onshore, offshore and shipbuilding, food industry, construction industry, tunnel and bridge construction, mechanical and plant engineering, power plant technology, cooling towers, swimming pools and pool construction.

MATERIAL DATA SHEET

DUPLEX: 1.4462 / 318LN I X2CrNiMoN22-5-3

MECHANICAL PROPERTIES

Tensile strength Rm [N/mm2]	Yield / proof strength Rp0,2 [N/mm2]
min. 700	min. 450

CHEMICAL COMPOSITION

C max.	Sl max.	Mn max.	P max.	S max.	Cr	Ni	Mo	N	Cu
0,030	1,00	2,00	0,040	0,015	21,0 ▼ 26,0	4,5 ▼ 7,5	2,5 ▼ 3,5	0,10 ▼ 0,22	-

CORROSION RESISTANCE CLASS

› IV / high resistance

NATIONAL TECHNICAL APPROVAL

› The material Duplex 1.4462 is listed in the National technical approval Z-30.3-6.
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INTERNATIONAL STANDARDS IN COMPARISON

AISI[1] / ASTM[2]	UNS[3]	BS[4]	AFNOR[5]	UNE[6]	SS[7]	Alloy
318 LN	S 31803	318 S 13	Z 5 CNDU 21.08	-	2377	Alloy 2205

[1] AISI = American Iron and Steel Institute
[2] ASTM = American Society for Testing and Materials
[3] UNS = Unified Numbering System
[4] BS = British Standards
[5] AFNOR = Association française de normalisation
[6] UNE = Spanish Standards
[7] SS = Swedish Standards

WE'LL BE PLEASED TO ADVISE YOU FOR YOUR APPLICATION.

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