Technical data sheet 011121MBA	Cored welding wire # TUBE S 22 9 3L-S	Welding Alloys

CLASSIFICATION

ASME IIC SFA 5.22 / AWS A 5.22:	EC2209
EN ISO 17633-A:	T 22 9 3 N L M NO 3
EN ISO 17633-B:	TS2209-M NO 0
UNS Number:	S39209
Equivalent Material Number:	1.4462

DESCRIPTION

- Cored duplex stainless steel wire for submerged arc welding
- 22% chromium - 9% nickel - 3% molybdenum - low carbon - nitrogen bearing weld metal
- Attractive bead appearance without residual slag, outstanding slag release even in narrow gaps
- High productivity and enhanced wetting properties compared to matching solid wires
- Mineral additions to the core improve both mechanical characteristics and hot cracking resistance
- Excellent X-ray soundness
- Welding under a flux blanket eliminates the emission of toxic fumes, particularly hexavalent chromium

APPLICATIONS

- Welding wrought, forged or cast duplex stainless steels
- Duplex stainless steel cladding or weld overlay
- Heterogeneous welding between duplex stainless steels and other stainless steels, CMn steels or low alloyed steels

Examples:

UNS	Material number	EN Symbol
S31803	1.4462	X2CrNiMoN 22-5-3
S32205	1.4462	
S32304	1.4362	X2CrNiN 23 4
S32202	1.4062	
S32003		
S32101	1.4162	X2CrMnNiN 22-5-2

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	N	S	P
0.03	1.30	0.50	23.0	9.0	3.20	0.15	0.008	0.020

Typical ferrite level: 45 FN

PRE_N = Cr + 3.3 Mo + 16 N ≥ 35

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A_5 [%]	CVN [J]
690	480	20	-50°C: 27

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2%[MPa]	A_5 [%]	CVN [J]
800	630	28	-50°C: 55

APPROVAL

TÜV (09441.01)

FLUX DESCRIPTION

	WA FLUX 325	WA FLUX 385	WA FLUX 415	WA ULTRAFLUX
EN ISO 14174 class	S A AB 1 65	S A AF 2 64	S A FB 1 55	S A FB 1 55

PACKAGING

Diameter	2.0 mm - 3.2 mm
Standard packaging	EN ISO 544 - ASME IIC SFA-5.2 M
	Coil: B450
Weight	25 kg

Other packaging and other diameters: please consult us