

**Technical data sheet**

01121MBA

Cored welding wire

**TUBE S 22 9 3L-G****CLASSIFICATION**

ASME IIC SFA 5.22 / AWS A 5.22:	EC2209
ASME IIC SFA 5.9 / AWS A 5.9:	EC2209
EN ISO 17633-A:	T 22 9 3 N L M M12 1
EN ISO 17633-B:	TS2209-M M12 1
UNS Number:	S39209
Equivalent Material Number:	1.4462
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

**DESCRIPTION**

- Metal cored duplex stainless steel wire for gas shielded arc welding
- 22% chromium - 9% nickel - 3% molybdenum - low carbon - nitrogen bearing weld metal
- Enhanced productivity, improved weldability, better wetting properties compared to solid wires
- Excellent weld metal quality and X-ray soundness
- Nitrogen free classical shielding gases are used for welding

**APPLICATIONS**

Welding wrought, forged or cast duplex stainless steels for service in the as-welded condition  
Heterogeneous welding between duplex stainless steels and other stainless and mild 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

**TYPICAL ALL-WELD METAL ANALYSIS**

C	Mn	Si	Cr	Ni	Mo	N	S	P
0.02	1.4	0.6	23	9.5	3.3	0.15	0.008	0.020

Typical ferrite level: 45 FN

PRE<sub>N</sub> = Cr + 3.3 Mo + 16 N ≥ 35**MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES**

Rm [MPa]	Rp0.2% [MPa]	A <sub>5</sub> [%]	CVN [J]
690	480	25	-40°C: 30

**TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES**

Rm [MPa]	Rp0.2% [MPa]	A <sub>5</sub> [%]	CVN [J]
800	610	28	-40°C: 35

**SHIELDING GAS**

EN ISO 14175:	M12	Ar + 0.5 % < CO <sub>2</sub> ≤ 2.5 with or without helium
	Z	Ar + CO <sub>2</sub> ≤ 0.5 % with or without helium
	I1	Ar

**OPERATING CONDITIONS**

Current type	Gas flow rate	Stick out	Recovery
DC (+) / pulsed	10 - 20 l/min.	12 - 25 mm	98 %

**WELDING POSITIONS**

EN ISO 6947: PA, PB

ASME IX: 1G, 1F, 2F

TUBE S 22 9 3L-G is primarily used in the flat and horizontal positions. However, welds in other positions are also possible using the short-circuiting or pulsed arc modes of transfer.

**PACKAGING**

Diameter	1.2 mm		1.6 mm	
	EN ISO 544 – ASME IIC SFA-5.2 M			
Spool type	S200	BS300	BS300	
Weight	5 kg	15 kg	15 kg	

Other packaging and other diameters: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.