Technical data sheet EN140923GB	Stainless steel filler metal – Solid wire # WA TSS/MSS 410	Welding Alloys

CLASSIFICATION

ASME IIC SFA 5.9 / AWS A 5.9: ER410
EN ISO 14343-A: W 13 / G 13

DESCRIPTION

- GTAW rod / GMAW stainless steel solid wire
- Designed for welding stainless steels with 12 - 14% Cr
- Colour matching and strength matching when welding 13 % Cr steels of the same type
- Very good polishing properties

APPLICATIONS

WA TSS/MSS 410 are suitable for welding steels with similar chemical compositions.
Primarily used for sealing surface applications on fittings made of unalloyed or low-alloy steels for operating temperatures up to 450°C

Examples:

AISI	UNS	Material number	EN Symbol
403	S40300	1.4000	X7Cr13
CA15	J91150	1.4008	G-X12Cr14
429	S42900	1.4001	X7Cr14
420	S42000	1.4021	X20Cr13
405	S40500	1.4002	X7CrAl13
410	S41000	1.4024	X15Cr13
410	S41000	1.4006	X10Cr13

TYPICAL WIRE ANALYSIS (weight %)

C	Mn	Si	Cr
0.08	0.5	0.5	13.0

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

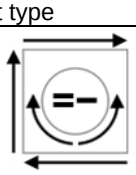
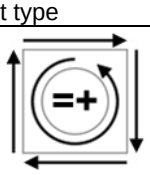
PWHT	Rm [MPa]	Rp0.2%[MPa]	A_5 [%]
850°C / 2 hours	450	250	15

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

PWHT	Rm [MPa]	Rp0.2%[MPa]	A_5 [%]	Hardness
720°C / 2 hours	630	480	30	180 HB at RT
As welded	-	-	-	310 HB at RT

Preheating to 200-400°C is necessary for joining.
Tempering to increase toughness at 700-750°C is recommended

SHIELDING GAS – OPERATING CONDITIONS – WELDING POSITIONS

GTAW		GMAW	
Shielding gas according to EN ISO 14175	Welding positions Current type	Shielding gas according to EN ISO 14175	Welding positions Current type
I1 (100 % argon)		M12 mixed gas (Ar + 0.5-2.5% CO_2) M13 mixed gas (Ar + 0.5-3% O_2)	

PACKAGING

Spools	Ø mm	0.8	1.0	1.2	1.6
Rods	Ø x1000 mm	1.6	2.0	2.4	3.2

Other diameters are available on request