


<b>Technical data sheet</b>  <small>EN140923GB</small>	<b>Stainless steel filler metal – Solid wire</b>  <b>WA TSS/MSS 410</b>	 <b>Welding Alloys</b>
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## 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)

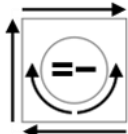
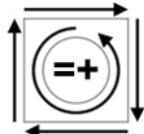
PWHT	Rm [MPa]	Rp0.2%[MPa]	A5 [%]
850°C / 2 hours	450	250	15

## TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

PWHT	Rm [MPa]	Rp0.2%[MPa]	A5 [%]	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 <sub>2</sub> ) M13 mixed gas (Ar + 0.5-3% O <sub>2</sub> )	

## 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

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.