



# MIG 20/10C

## Classification

AWS A5.9 : ER308H

ISO 14343-A : G 19 9 H

## Description & Applications

High carbon solid wire for GMAW of stainless steels like 304H, 308H with high Carbon content. Mainly used for creep-resistant pieces and oxidation resistance of working temperatures between 400°C to 750°C.

**Main applications:** Boiler making, piping systems, pressure vessels...

**Base materials:**

**Stainless steels for high temperature applications:**

UNS	Alloy	EN 10088	Material N°
S30409	304H	X6CrNi18-11	1.4948
S30400	304	X5CrNi18-10	1.4301
S32100	321	X6CrNiTi18-10	1.4541
		X10CrNiTi18-10	1.6903
		X10CrNi18-8	1.4310

## Typical Chemical Composition ( % )

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co	N
Min	0.04	0.30	1.0	19.5	9.0			-			-	-
Max	0.08	0.65	2.5	21.0	11.0	0.50	0.5	-	0.03	0.02	-	-
Type	0.05	0.40	1.8	19.9	9.7	0.10	0.10	0.01	0.02	0.01	0.06	0.06

Delong ferrite: ~6%

## All Weld Metal Mechanical Properties

	R <sub>p0.2</sub> ( MPa )	R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	KV ( J )
Min	350	550	35	-
Max				-
Type	380	580	37	+20°C 100

## Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	Voltage (V)	
GMAW = +	0.8	70 - 180	18 - 26	ISO 14175: M12 (Ar+0.5-5%CO <sub>2</sub> ) M13 (Ar+0.5-3%O <sub>2</sub> ) 15-20 l/min
	1.0	80 - 220	18 - 28	
	1.2	150 - 320	22 - 32	
	1.6	220 - 380	24 - 34	

Back shielding with Argon or Nitrogen gas or with copper backing support to avoid "back end" rust phenomena.

FT En-MN06-200325

**Liability:** This document is intended to assist the user in choosing the product. It is up to the user to verify that the chosen product is suitable for applications for which it is intended. The company FSH Welding Group reserves the right to alter specifications without prior notice of its products. The descriptions, illustrations and specifications are for reference only and cannot be held liable for FSH Welding Group. **Fumes:** Consult information on MSDS, available upon request.

[www.fsh-welding.com](http://www.fsh-welding.com) - [info@fsh-welding.fr](mailto:info@fsh-welding.fr)