



# TIG 20/10S

Old reference: TIG 308LSi

## Classification

AWS A5.9 : ER308LSi

ISO 14343-A : W 19 9 L Si

## Description & Applications

Low carbon and increased Silicon solid rod for GTAW of stainless steels like 304 and 304L, stabilised with Niobium like 347 and stabilised with Titanium like 321. Used for applications with service temperature between -120°C to +350°C.

Available in spool for automatised GTAW (TIG orbital).

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

### Base materials

### Stainless steels for general use:

UNS	Alloy	EN 10088	Material N°
S30400	304	X5CrNi18-10	1.4301
S30403	304L	X2CrNi19-11	1.4306
S32100	321	X6CrNiTi18-10	1.4541
S34700	347	X6CrNiNb18-10	1.4550

## Typical Chemical Composition ( % )

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co	N
Min		0.65	1.0	19.5	9.0			-			-	-
Max	0.03	1.00	2.5	21.0	11.0	0.5	0.5	-	0.03	0.02	-	-
Type	0.015	0.90	1.8	20.0	10.0	0.10	0.10	0.01	0.02	0.015	0.12	0.06

Delong ferrite: 6-12%

## All Weld Metal Mechanical Properties

	R <sub>p0.2</sub> ( MPa )	R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	KV ( J )
Min	320	510	35	-
Max				-
Type	430	600	38	+20°C : 110 -196°C : 50

## Welding Current & Instructions

Welding mode	Shielding Gas
TIG = -	ISO 14175 : I1 (Ar) 6-12 l/min Back shielding: I1 (Ar) / N1 (Nitrogen) : 3-6 l/min

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

FT En-TN03-200406

**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)