



## TIG 29/9

Old reference: TIG 312

### Classification

AWS A5.9 : ER312

ISO 14343-A : W 29 9

### Description & Applications

High ferrite content solid rod for GTAW of dissimilar steels with an austenitic-ferritic stainless steel deposit. Well adapted for steels difficult to weld as tool steels, Mn steels, spring steels... Metal deposit highly resistant to cracks and easily machinable. Also suitable for buffer layers before hardfacing and for building up cutting tools.

**Main applications:** Heterogenous assemblies, buffer layer before hardfacing...

### Typical Chemical Composition ( % )

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co
Min		0.30	1.0	28.0	8.0			-			-
Max	0.15	0.65	2.5	32.0	10.5	0.5	0.5	-	0.03	0.02	-
Type	0.10	0.40	1.8	30.2	9.3	0.15	0.10	0.01	0.02	0.01	0.05

### All Weld Metal Mechanical Properties

	R <sub>p0.2</sub> ( MPa )	R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	KV ( J )
Min	450	650	15	-
Max				-
Type	520	730	25	+20°C 80

### 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.

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