



DATA SHEET
DS 127
Rev. 02 dd 23/07/2014
INETIG INOX 316 LSI

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CLASSIFICATION

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.9: ER316LSi	EN ISO 14343-A: W 19 12 3 L Si
AWS A 5.9M: ER316LSi	
ASME SFA 5.9: ER316LSi	
ASME SFA 5.9M: ER316LSi	

APPROVALS

TÜV	DB	

ALLOY TYPE

316L for welding stainless steel.

APPLICATIONS

Tig rod with low carbon concentration designed for welding stainless steel with 19% Cr, 12% Ni and 2-3% Mo, content with service temperature up to 400°C. Thanks to the higher silicon content its arc stability gets improved, it gives good-looking weld bead and very limited spattering. It finds application in pipes fabrication, weld overlay, vessels & boilers fabrication, ship building and marine or salt environment. Generally good resistance to corrosion, intercrystalline corrosion and to many acids.

MATERIALS TO BE WELDED

ASTM		EN	Others
316	316 Ti	10088-1/-2 X2CrNiMo 17-12-2	
316 L	316 Cb	10088-1/-2 X2CrNiMo 18-14-3	
316 LN		10088-1/-2 X2CrNiMoN 17-11-2	
CF3 M		10088-1/-2 X2CrNiMoN 17-13-3	
CF8 M		10088-1/-2 X4CrNiMo 17-12-2	
		10088-1/-2 X4CrNiMo 17-13-3	
		10213-4 GX5CrNiMo 19-11	

WELDING GUIDELINES

Preheat and PWHT are not required. Maximum interpass temperature 250°C.

TECHNICAL INFORMATION

Gas: Argon 100% (EN ISO 14175)

Welding positions: all positions

**WELDING PARAMETERS****PACKAGING DATA**

Current	DC - Straight polarity
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Diameter (mm)	1.2	1.6	2.0	2.4	3.2	4.0
Length (mm)	1000	1000	1000	1000	1000	1000
Carton	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg	5/25 Kg

* tolerances according to EN ISO 544 specification



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TYPICAL CHEMICAL COMPOSITION OF WIRE

C %	Mn %	Si %	Cr %	Ni %	Mo %	Cu %			
0.020	1.70	0.80	18.50	12.20	2.50	0.10			

TYPICAL MECHANICAL PROPERTIES

GAS		Yield strength	Tensile strength	Elongation on % 5d	Impact energy (Charpy V)				
		Rs	Rm	A 5d	+ 20°C	0°C	-20°C	-40°C	-50°C
		(MPa)	(MPa)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
I1	as welded	490	670	34	> 47	-	-	-	-

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL INOX 316 LSI	AWS A 5.9: ER316LSi	EN 14343-A: G 19 12 3 L Si
TIG Rods			
SAW Submerged arc			
FCAW Cored wire			
SMAW Electrodes	INOX 316 RLC	AWS A 5.4: E316L-17	EN ISO 3581-A: E 19 12 3 L R