
	GROUP AIR LIQUIDE WELDING ISAF GROUP 	WIRE ROD SPECIFICATION <i>for GMAW (Gas Metal Arc Welding)</i>	1ST01A 3Si1 Rev. : 2 Date : 02/12/2014
	TYPE: Carbon steel for wire rod 3Si1 (SG2)		
	Applicable international standards ISO 14341 : 3 Si1 AWS A5.18 : ER 70 S-6		

The Supplier shall keep confidential and do not disclose to any third party any and all written or oral information, material, documents and data, whether of a technical or commercial nature, however related to AIR LIQUIDE WELDING and particularly, but not limited to, any details, technical specification (including this one) and characteristics, measures, prices, terms and conditions of sale, of the supplied products.

CHEMICAL COMPOSITION			
	Min % required	Max % required	Typical % value
C	0,060	0,080	0,070
Mn	1,40	1,50	1,45
Si	0,80	0,90	
P		0,020	✓
S		0,020	✓
Ni		0,100	✓
Cr		0,100	✓
Mo		0,030	✓
Cu		0,040	→ 0,08 max
Al		0,010	→ 0,02 max
V		0,020	✓
Ti		0,015	✓
N		0,0070	→ 0,010 max
O		0,0150	✓
Nb		0,010	✓
Ca		0,0015	✓
B		0,0010	✓
Ti+Zr		0,100	✓
As		0,020	✓
Sn		0,015	✓
Pb		0,0100	✓
Fe		the rest	

MECHANICAL PROPERTIES			
	Min % required	Max % required	Typical % value
Rm (N/mm2)	470	550 ✓	500
Z (%)	77% ✓		

OTHER PROPERTIES			
	Min % required	Max % required	
Oxide Scale (% by weight):	0,3 ✓	0,6 ✓	
Coil Dimensions [cm]:	ID min: 850 mm	OD max: 1350 mm ✓	
Coil Weight [kgs]:	1,90 tons ✓	2,70 tons ✓	

DIMENSIONS [mm]		EN 10108A	
Nominal Ø	5.50 mm ✓	Tolerance	±0.20 mm ✓
Variation from cylindric shape: (difference between lowest and highest diameter, measured in one section)	≤0.32 mm ✓		

Issued by: Carlo Ballardini

Date: 02/12/2014

Verified by: Michele Bagozzi

Date: 02/12/2014

Approved by: Bruno Leduey

Date: 02/12/2014

Special agreements with: List of approved suppliers : Revision index :	see Annex no. 2 see Annex no. 3 see Annex no. 4				
SUPPLIER ACCEPTANCE					
ACCEPTED BY:	Company	Title	Name	Signature	Date
Together with this specification must be provided: ISO 9001 Certificate . The supplier must keep updated these certificates.					