


Technical data sheet <small>011121MBA</small>	Coated SMAW Electrode WA TETRA 309HT-E	
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CLASSIFICATION

ASME IIC SFA 5.4 / AWS A 5.4: -
EN ISO 3581-A: E 22 12 R 32
Equivalent Material Number: 1.4893

DESCRIPTION

- Rutile coated stainless steel electrode
- 22% Cr-10% Ni alloy with controlled additions of C, Si, N and rare earths
- Austenitic deposit resisting to scaling and oxidation up to 1100°C
- Stable fusion, good slag removal, weld deposit with good appearance
- Complements Welding Alloys cored wires TETRA V 309HT-G and TETRA S B309HT-G

APPLICATIONS

WA TETRA 309HT-E weld metal has a scaling temperature beyond 1000°C. The controlled carbon and ferrite levels improve microstructural stability and high temperature strength compared to the 309(L) types whereas the lower nickel content provides better resistance against sulphur attack than the 310 grades.

Examples of alloys to be welded

Designation	UNS	Material number	EN Symbol
309	S30900	1.4828	X15 CrNiSi 20-12
AVESTA 153MA	S30415	1.4891	X4 CrNiSiN 18 10
AVESTA 253MA	S30815	1.4893	X8 CrNiSiN 21 11

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Ce	Mo	N	S	P
0.1	0.8	1.0	22.0	11.0	0.005	0.1	0.1	0.01	0.02

Typical ferrite level: 6 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
550	350	25	+20°C: 40

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
710	550	35	+20°C: 55

OPERATING CONDITIONS

Electrode ØxL [mm]	2.5 x 350	3.2 x 350	4.0 x 350
Current [A]	50 - 80	80 - 110	90 - 140
= +	~ 70V		

Re-drying: 2h at 250°C, if necessary.

WELDING POSITIONS

EN ISO 6947: PA, PB, PC, PD, PE, PF
ASME IX: 1F, 1G, 2F, 2G, 3F, 3G, 4F, 4G

PACKAGING

Electrode ØxL [mm]	2.5 x 350	3.2 x 350	4.0 x 350
Weight/box [kg]	5.0		

Other packaging and other sizes: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.