

Technical data sheet <small>011121MBA</small>	Cored welding Wire HARDFACE W-S	 Welding Alloys
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CLASSIFICATION

EN 14700: T ZFe3

DESCRIPTION

- Tubular wire for submerged arc hardfacing
- Martensitic alloy used in applications where greater hardness of the weld metal is required up to 500°C
- Outstanding resistance to low stress abrasion with heavy impact and high compressive stresses

APPLICATIONS

- HARDFACE W-S is used for surfacing parts subjected to heavy compressive stresses and moderate abrasion or metal-to-metal wear, combined with mechanical and thermal shocks.
- Pre-heat is an essential requirement to prevent hot cracking. The level of preheat is a function of the size and geometry of the component to be hardfaced and its chemical composition. Large build-ups are recommended to be stress-relieved. Avoid excessive build up thickness (use Hardface WLC for rebuilding and Hardface W for the cap layer)

Examples

Refurbishing of steel mill rolls, crane wheels, hot work extrusion mandrels, crushing hammers, shear knives, pulleys, and winches

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Mo	W
0.5	2	0.8	6.5	1.5	1.5

Structure: martensite

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Hardness: 3-layer deposit on mild steel: 52 – 56 HRC

FLUX DESCRIPTION

	WA FLUX 325	WA FLUX 385	WA FLUX 415	WA ULTRAFLUX
EN ISO 14174 class	S A AB 1 65	S A AF 2 64	S A FB 1 55	S A FB 1 55

OPERATING CONDITIONS

Diameter [mm]	Current [A]		Voltage [V]		Stick-out [mm]	
	Range	Optimum	Range	Optimum	Range	Optimum
2.4	200 - 450	350	26 - 30	30	25 - 35	30
2.8	250 - 550	400	28 - 32	30	25 - 35	30
3.2	300 - 650	500	28 - 32	30	25 - 35	30

Recovery : 95 %

Current type/polarity: DC+

WELDING POSITIONS

Flat

PACKAGING

Diameter	≥ 2.4 mm	
Standard packaging	B 450 coil	Drum
Weight	25 kg	Up to 330 kg

Other packaging and other diameters: 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.