


Technical data sheet <small>EN031025GB</small>	Cored welding Wire HARDFACE NICARBWHT	 Welding Alloys
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CLASSIFICATION

EN 14700: T Ni20

DESCRIPTION

- Cored hardfacing wire containing 40 to 60% tungsten carbides (according to wire diameter) in a special Ni-B-Si matrix
- Optimised combination of toughness and wear resistance due to the heterogeneous weld metal composed of tungsten carbides distributed in a hard and very tough matrix
- High thermal stability of the tungsten carbides, allowing higher welding parameters for improved productivity
- Excellent wetting characteristics

APPLICATIONS

Dedicated to applications requiring extreme abrasion resistance combined with corrosion resistance

Examples

Bucket teeth, wood chipper spouts, scrapper blades, crusher bars, components for agriculture, conveyor screws, trenchers, drilling tricones, etc.

TYPICAL ALL-WELD METAL ANALYSIS

Composite deposit containing tungsten carbide particle in a Nickel-boron-silicon matrix	WC content
	40 to 60% depending on \varnothing

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Hardness: 55 - 60 HRC
Tungsten carbides: 2200 - 2600 HV
Ni matrix: 600 - 650 HV

CONDITIONS OF USE

Current type	Shielding gas	
DC+	EN ISO 14175	M21: Ar + 15 – 25 % CO ₂

Surfaces to be welded should be free of rust, scale, oil or any other contamination
Work with low heat input to avoid melting or sinking of the tungsten particles

OPERATING CONDITIONS

Gas shielded M21

Diameter [mm]	Current [A]		Voltage [V]		Stick-out [mm]	
	Range	Optimum	Range	Optimum	Range	Optimum
1.2	90 - 150	110	20 - 22	21	15 - 30	15
1.6	100 - 160	120	20 - 22	21	15 - 30	15
2.0	130 - 190	170	21 - 23	22	15 - 30	15
2.4	220 - 280	260	22 - 24	23	15 - 30	20
2.8	250 - 320	300	22 - 24	23	15 - 30	20

Recovery: 91 %

WELDING POSITIONS

Flat

PACKAGING

Diameter	1.2 - 2.4 mm		2.4 - 2.8 mm	
Standard packaging (EN ISO 544)	BS 300 spool		B 450 coil	Drum
Weight	15 kg		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.