

Technical data sheet

011121MBA

Cored welding wire**ROBOFIL M Ni1****CLASSIFICATION**

ASME IIC SFA 5.28 / AWS A 5.28

EN ISO 17632-A

ASME IX Qualification

E80C-Ni1 H4

T50 6 1Ni M M21 1 H5

QW-432 F-N° 6 QW-442 A-N° 10

DESCRIPTION

- Seamless high fill copper coated metal-cored tubular wire for gas shielded metal arc welding
- 1% nickel alloyed to improve sub-zero impact strength
- Single and multi-pass welding of cold tough steels
- Optimal productivity by combining advantages of both seamless and seamed tubular wires
- H_{DM} guaranteed < 4 ml/ 100g deposited metal over the whole parameter box
- No moisture pick up, excellent wire feeding properties, good weldability and low spatter

APPLICATIONS

Construction steels

EN 10025

S235JR to S355K2G4

Fine-grained steels

EN 10028-3

P275N, NH, NL1, NL2 to P460N

EN 10113

S275N to S460N, S275M to S460ML

Pressure vessel steels

EN 10028-2

P235GH to P355GH

Pipe steels

EN 10208

L240NB to L445NB

API 5LX

X42, X46, X 52, X60, X65

Shipbuilding steels

A, B, D, E, A32/36 to F40

ISO/TR 15608: Groups 1.1, 1.2, 1.3, 2.1 and 3.1

APPROVALS

TÜV (10544.01), DB (42.128.03)

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Ni
0.05	1.3	0.6	0.9

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
560	500	24	-60°C: 47

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
610	540	27	-60°C: 80

SHIELDING GASEN ISO 14175: M21 (Ar + 15 - 25% CO₂)**OPERATING CONDITIONS**

Diameter [mm]	Current type	Current [A]	Voltage [V]	Stick-out [mm]
1.2	DC+ or pulsed	100 - 350	15 - 35	12 - 25
1.4	DC+ or pulsed	120 - 400	15 - 35	12 - 25
1.6	DC+ or pulsed	130 - 450	15 - 35	15 - 25

ROBOFIL M Ni1 can be welded as well backhand (trailing) as forehand (pushing)

WELDING POSITIONS

ROBOFIL M Ni1 is primarily used in the flat and horizontal-vertical positions. However, welds in other positions are also possible using the short-circuiting or pulsed arc modes of transfer.

PACKAGING

Diameter	1.0 mm	1.2 mm	1.6 mm
	EN ISO 544 – ASME IIC SFA-5.2 M		
Spool type	BS300		
Weight	15 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.