

Technical data sheet <small>011121MBA</small>	Nickel base filler metal – Solid wire WA TNI/MNI 59	
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CLASSIFICATION

ASME IIC SFA 5.14 / AWS A 5.14:	ERNiCrMo-13
EN ISO 18274:	S Ni 6059 (NiCr23Mo16)
Equivalent material number:	2.4607
ASME IX Qualification	QW432 F-N° 43

DESCRIPTION

- GTAW rod / GMAW nickel base solid wire
- Suitable welding of matching nickel base alloys and dissimilar joints
- Ni - 23% Cr - 16% Mo alloy which commonly known as alloy 59
- Excellent resistance against pitting, stress and crevice corrosion in oxidizing atmosphere

APPLICATIONS

WA TNI/MNI 59 are suitable for welding and cladding nickel-based alloys such as alloy 59 or similar materials. They are also used for dissimilar welding of nickel-based alloys to each other, to alloyed steels or to stainless steels. A typical application is joining and cladding components in contact with organic or chlorinated media. For scrubbers and flue-gas desulfurization plants.

Examples:

Alloy	UNS	EN Designation	Material Number
59	N06059	NiCr23Mo16Al	2.4605
C-22	N06022	NiCr21Mo14W	2.4602
C-276	N10276	NiMo16Cr15W	2.4819
C-4	N06455	NiMo16Cr16Ti	2.4610
625	N0625	NiCr22Mo9Nb	2.4856
24	S34565	X2CrNiMnMoNbN25-18-5-4	1.4565
904hMo		X1NiCrMoCuN25-20-7	

TYPICAL WIRE ANALYSIS [%]

C	Mn	Si	Cr	Mo	Al	Fe	Ni
0.01	0.5	0.05	23.0	16.0	0.3	1.0	Bal.


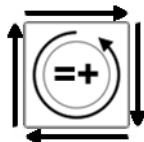
MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
700	450	25	+20°C: 70

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
740	500	32	+20°C: 120

SHIELDING GAS – OPERATING CONDITIONS – WELDING POSITIONS

GTAW		GMAW	
Shielding gas according to EN ISO 14175	Welding positions Current type	Shielding gas according to EN ISO 14175	Welding positions Current type
I1 (100 % argon)		M12 mixed gas (Ar + 10-30% He + 0.5% CO ₂) I1 (100 % argon)	

PACKAGING

Spools	Ø mm	0.8	1.0	1.2	1.6
Rods	Ø x1000 mm	1.6	2.0	2.4	3.2

Other diameters are available on request

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.