

Metal cored wire for Hardox® wear plate

Tubular cored electrode arc welding

GENERAL PRODUCT DESCRIPTION

A general purpose metal cored wire for use with M21 shielding gas. Diameters less than 1.4mm are all-positional except vertical down.

KEY BENEFITS

- Developed especially for avoiding hydrogen cracks
- Excellent performance in Hardox® wear plate
- Stable arc with very low amount of spatter
- Possible to weld directly on primed surface
- High deposition rate for maximum productivity

Shielding Gas: M21 (EN ISO 14175) **Alloy Type:** C Mn
Polarity: DC+ **Fill Type:** Metal cored
Diff Hydrogen: < 5 ml/100g

CLASSIFICATIONS Weld Metal

SFA/AWS A5.36 E71T15-M21A2-CS1
EN ISO 17632-A T 42 2 M M21 2 H5

APPROVALS

ABS 3YSA H5
BV SA3YM (M21)
CE EN 13479
DB 42.039.03 (M21)
DNV III YMS (M21)
GL 3YS
LR 3YS H5 (M21)
VdTÜV 09086

CHEMICAL COMPOSITION

	All Weld Metal (%)	
	M21 Shielding gas	
	Min	Max
C	0.03	0.10
Si	0.4	0.8
Mn	1.2	1.7
P		0.030
S		0.030
Cr		0.20
Ni		0.50
Mo		0.20
V		0.08
Nb		0.05
Cu		0.30

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

M21 shielding gas

EN

Properties	Min	Max	Typ
ReL (MPa)	420		503
Rm (MPa)	510	640	611
A5 (%)	22		26
Charpy V at 20°C (J)	54		106
Charpy V at 29°C (J)	27		85

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U	
	Min	Max			Nom	Nom	Min	Max	Min	Max
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1.2	100	320	20	95	1.3	7.5	1.8	12.0	16	32
1.4	120	380	20	95	1.6	7.5	2.0	9.0	16	34
1.6	140	450	20	95	1.6	8.0	1.5	8.5	18	36

- W** = Gas consumption (l / min)
- η = Recovery, g weld metal / 100g wire (%)
- H** = Deposit rate (kg weld metal / hour arc time)
- Feed** = Feeding rate (m/min)
- U** = Arc voltage (V)

For fast and easy calculations of heat input and mechanical properties please use the Weldcalc downloadable app available for Iphone/Android or run it from the web on <https://extern.ssab.com>

For more information also see Welding of Hardox® available from www.ssab.com/download-center