



Product Data Sheet

T 'Tubular cored electrode arc welding'

OK Tubrod 14.02

Prepared by Daniel Amahatsion	Qualified by P-O Oskarsson	Approved by Neil Farrow	Reg no EN007637	Cancelling EN006451	Reg date 2017-10-20	Page 1 (2)
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REASON FOR ISSUE

EN ISO Classification updated

GENERAL

A 0.5% Mo metal cored wire for use with M21 shielding gas. Diameters less than 1.4mm are all-positional.

Shielding Gas: M21 (EN ISO 14175)

Polarity: DC+-

Alloy Type: C Mn low alloy steel (0.5 % Mo).

Fill Type: Metal cored

Diff Hydrogen: < 10 ml/100g

CLASSIFICATIONS Weld Metal

SFA/AWS A5.36 E81T15-M21A0-G
EN ISO 17632-A T 50 2 Z M M21 2 H10

APPROVALS

CE EN 13479
DB 42.039.34 (M2)
VdTÜV 10716

CHEMICAL COMPOSITION

All Weld Metal (%)

	M21 shielding gas	
	Min	Max
C	0.04	0.11
Si	0.35	0.85
Mn	1.05	1.65
P		0.025
S		0.025
Cr		0.20
Ni		0.50
Mo	0.35	0.65
V		0.08
Nb		0.05
Cu		0.30

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	M21 shielding gas		
	As welded		
	Min	Max	Typ
ReL (MPa)	500		588
Rm (MPa)	560	720	663
A5 (%)	20		25
Charpy V at -20°C (J)	47		79

Comments:

The hydrogen values are determined in accordance with the method given in ISO 3690.

Welding parameters for hydrogen determination: Wire diameter: 1.6mm Shielding gas: M21, Current: 350 amps, Voltage: 31 V, Stickout: 25mm



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ECONOMICS & CURRENT DATA

Dimension (mm) Ø	Current (A)		W	η	H		Feed			U
	Min	Max	Nom	Nom	Min	Max	Min	Max	Min	Max
1.2	100	320	20	95	1.3	7.5	1.8	12.0	16	32
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)