



Product Data Sheet

T 'Tubular cored electrode arc welding'

OK Tubrod 14.13

Signed by Neil Farrow	Approved by Neil Farrow/Christos Skodras	Reg no EN004508	Cancelling EN004421	Reg date 2008-09-29	Page 1 (2)
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REASON FOR ISSUE

EN ISO 17632-A classification added and LR updated

GENERAL

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

Shielding Gas: M21 (EN 439)

Polarity: DC+

Alloy Type: C Mn

Fill Type: Metal cored

Diff Hydrogen: < 5 ml/100g

CLASSIFICATIONS Weld Metal

SFA/AWS A5.18 E70C-6M
EN ISO 17632-A T 42 2 M M 2 H5

APPROVALS

ABS	3YSAH5 (M21)
BV	SA3YM (M21)
CE	EN 13479
DB	42.039.03 (M21)
DNV	IIIYMS (M21)
GL	3YS (M21)
LR	3, 3YS (M21)
MoD	MS<25mm, B & BX < 12mm (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



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MECHANICAL PROPERTIES OF WELD METAL

Properties	All Weld Metal		
	M21 shielding gas EN		
	As welded		
	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		

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: 29 V Stickout: 25mm, DC positive.

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U		
	Min	Max			Nom	Nom	Min	Max	Min	Max	Min
$\varnothing$											
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)