Product Data Sheet

S 'Submerged arc welding'

OK Tubrod 15.24S

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Daniel Amahatsion	Tero Borg	Neil Farrow	EN006984	EN006812	2016-01-18	1 (2)

REASON FOR ISSUE

Typical mechanical values with OK Flux 10.62 added

GENERAL

A 1% Ni basic cored wire for submerged arc welding giving good toughness down to -50 °C.

Alloy Type: Low alloy (1% Ni)
Fill Type: Basic
Diff Hydrogen: <5ml/100g

CLASSIFICATIONS Weld Metal

SFA/AWS A5.23	F7P8-EC-G (10.61)
SFA/AWS A5.23	F8A6-EC-G (10.62)
SFA/AWS A5.23	F8A6-EC-G (10.71)
EN ISO 14171-A	S 46 4 AB TZ (10.71)
EN ISO 14171-A	S 46 5 FB T3Ni1 (10.62)

APPROVALS

ABS	4YQ460M H5 (10.62)
BV	4Y46M H5 (10.62)
CE	EN 13479 (10.62)
CE	EN 13479 (10.71)
DNV	IV Y46M(H5) (10.62)

CHEMICAL COMPOSITION

All Weld Metal (%)

	with OK Flux 10.61		with OK Flux 10.62		with OK Flux 10.71	
	Min	**Max**	**Min**	**Max**	**Min**	**Max**
C	0.05	0.10	0.05	0.10	0.05	0.10
Si	0.10	0.40	0.10	0.40	0.30	0.70
Mn	1.50	2.00	1.50	2.00	1.80	2.30
P		0.025		0.025		0.025
S		0.025		0.025		0.025
Ni	0.60	0.90	0.60	0.90	0.60	0.90

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

	AWS OK Flux 10.61		AWS OK Flux 10.62			AWS OK Flux 10.71	
	As welded		As welded			As welded	
Properties	**Min**	**Max**	**Min**	**Max**	**Typ**	**Min**	**Max**
Rp0.2 (MPa)	470		470		510	470	
Rm (MPa)	550	690	550	690	610	550	690
A4 (%)	20		20		29	20	
Charpy V at -40°C (J)						47	
Charpy V at -50°C (J)	47		47		106		

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ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U	
Ø	Min	Max	Nom	Nom	Min	Max	Min	Max	Min	Max
2.4	250	500		85	3.5	9.5	1.5	2.5	28	38
3.0	400	800		85	6.0	14.5	2.5	6.0	28	40
4.0	500	900		85	7.0	18.0	2.0	5.5	28	40

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)

OTHER DATA

The hydrogen values are determined according to the method given in ISO 3690.

Welding parameter for hydrogen determination: Wire diameter 4.0mm, 500 amps, 30 volts, 30mm stickout, DC+ polarity with OK 10.62 flux