

PRODUCT DATA SHEET

Subarc S3Si



Subarc S3Si is a copper coated solid wire for submerged arc welding with 1,5% Mn and 0,2% Si content to be used with Mn-active fluxes for the welding of beams, tanks, pressure vessels and shipyards.

Classifications

AWS	A5.17-89	EM12K
EN	756	S3Si

Typical Chemical Analysis (All weld metal)

% Carbon	0,11	% Phosphorous	0,001
% Manganese	1,7	% Sulphur	0,005
% Silicon	0,32	% Copper	0,1

Typical Chemical Analysis Weld Metal (SA 516 GR 70 Plate)

Flux	HPF-N90	HPF-A72	MK-N	HPF-N I IX
% Carbon	0,068	0,076	0,089	0,072
% Manganese	1,875	1,89	1,621	1,75
% Silicon	0,5	0,76	0,546	0,67
% Phosphorous	0,031	0,033	0,027	0,029
% Sulphur	0,012	0,01	0,011	0,01
% Copper	0,09	0,077	0,067	0,075

Typical Mechanical Properties (All weld metal in the as welded condition)

Flux	HPF-N90 As Welded	HPF-A72 As Welded	MK-N As Welded	HPF-N I IX As Welded	HPF-N I IX PWHT 1 hr @ 690°C
Flux/Wire Combination	F7A2-EH12K	F7A2-EH12K	F7A2-EH12K	F7A8-EH12K	F7P8-EH12K
Tensile Strength	566 MPa	642 MPa	592 MPa	567 MPa	638 MPa
Yield Strength	445 MPa	540 MPa	493 MPa	464 MPa	531 MPa
% Elongation on 4d	31	30	31	31	29
Charpy Impact Value	91 J at -29°C	62 J at -29°C	145 J at -29°C	29 J at -62°C	7 J at -62°C

Packing Data

Saw Wire Diameter (mm)	Current (DC+/AC)		Pack Mass (kg)	Item Number
	Amps (A)	Volts (V)		
2,4	350	28	27,0	W078116
3,2	450	28	27,0	W078118
4,0	600	30	27,0	W078120

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