

# PRODUCT DATA SHEET

## Subarc Sub 70-2



Afrox Sub 70-2 is a copper coated CMn submerged arc welding wire for joining carbon manganese steels. It is widely used in structural steelwork, shipbuilding, pressure vessel manufacture and construction. The wire is suitable for both single-pass and multi-pass welding and for welding butt and

fillet joints where higher mechanical properties are required. The wire can be used with basic, neutral and active fluxes. When used with active Mn and Si alloyed fluxes, it is limited to thickness below 25 mm.

### Classifications

AWS	A5.17-89	EM12K
EN	756	S2

### Typical Chemical Analysis (All weld metal)

% Carbon	0,11	% Phosphorous	0,009
% Manganese	0,99	% Sulphur	0,023
% Silicon	0,137	% Copper	0,14

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

Flux	HPF-N90	HPF-A72	MK-N	HPF-N I IX
% Carbon	0,069	0,064	0,072	0,082
% Manganese	1,224	1,573	1,2	1,036
% Silicon	0,292	0,748	0,408	0,332
% Phosphorous	0,022	0,031	0,029	0,016
% Sulphur	0,022	0,024	0,022	0,014
% Copper	0,168	0,182	0,53	0,172

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

Flux	HPF-N90	HPF-A72	MK-N	HPF-N I IX
Flux/Wire Combination	F7A2-EM12K	F7A2-EM12K	F7A2-EM12K	F7A4-EM12K
Tensile Strength	541 MPa	633 MPa	550 MPa	575 MPa
Yield Strength	424 MPa	524 MPa	452 MPa	467 MPa
% Elongation on 4d	30	26	30	32
Charpy Impact Value	68 J at -29°C	40 J at -29°C	85 J at -29°C	74 J at -40°C

### Packing Data

Saw Wire Diameter (mm)	Current (DC+/AC)		Item Number (25 kg spools)	Item Number (68 kg coils)	Item Number (450 kg bobbins)	Item Number (300 kg drums)
	Amps (A)	Volts (A)				
2,0	400	28	W080051	-	-	-
2,4	450	28	W080052	-	-	W080062
3,2	500	28	W080053	W080067	-	W080063
4,0	550	28	W080054	W080068	W080059	W080064
5,0	600	28	W080055	-	W080060	-

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For more information contact the Afrox Customer Service Centre Tel: 0860 02 02 02  
E-mail: [customer.service@afrox.linde.com](mailto:customer.service@afrox.linde.com) Website: [www.afrox.com](http://www.afrox.com)

