

PRODUCT DATA SHEET

Afrox Speedcraft



Speedcraft is a standard grade general-purpose rutile type electrode, suitable for welding mild steel in all positions using AC or DC power sources. It has a coating composition that promotes a smooth arc action, low spatter loss and easily removable slag. Good strike and restrike characteristics at 50 OCV make it suitable for use on home welders and industrial equipment. It has a rapid burn-off rate and deposits a smooth convex weld bead with fine ripples.

Applications

Speedcraft is recommended for welding a wide variety of carbon manganese steels and commercial mild steels having a tensile strength up to approximately 530 MPa.

Technique

Either the touch or free arc technique can be used when welding with Speedcraft.

Re-drying Procedure

Rutile coated electrodes do not normally require re-drying prior to use, however, if suspected of being damp as shown by an erratic arc behaviour, the electrodes should be re-dried at 100-120°C for 1-2 hours.

Classifications

AWS	A5.1	E6013
SABS	455	E4313/0315
EN	2560	E 38 O R 11

Approvals

South African Bureau of Standards

Lloyds Register of Shipping Grade DXVuO,BF,Im,No

Typical Chemical Analysis (All weld metal)

% Carbon	0,05 - 0,1	% Sulphur	0,025 max
% Manganese	0,35 - 0,6	% Phosphorous	0,025 max
% Silicon	0,2 - 0,5		

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

Yield Strength	400 MPa min
Tensile Strength	460 - 530 MPa
% Elongation on 50 mm	22 min
Charpy V-Notch at +20°C	70 J min
Charpy V-Notch at 0°C	50 J min

Typical Current Values (AC 50 OCV min or DC+/-)

Diameter (mm)	Current (A)
2,5	60 - 85
3,15	110 - 130
4,0	140 - 165

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Deposition Data

Note:

- 1) The deposition data given was established at the optimum current rating which would be approximately in the middle of the specified range.
- 2) The mass of weld metal deposited per arc hour is a theoretical value which does not take into account welder efficiency.

Diameter (mm)	Mass of an Electrode (g)	Burn-off Time (sec)	Mass of Metal Deposited per Electrode (g)	Mass of Weld Metal Deposited per Arc Hour (g)	No. Electrodes per kg of Weld Metal	kg Weld Metal per kg of Electrodes
2,5	20,0	58,8	10,1	600	98	0,51
3,15	29,3	63,8	16,7	900	59	0,57
4,0	45,9	76,4	26,1	1 600	38	0,57

Data for Welding Horizontal Fillet Welds

Diameter (mm)	Throat Thickness (mm)	Current (A)	Arc Time (sec)	Bead Length per Electrode (mm)	Welding Speed (m/h)
2,5	2,2	80	52,5	180	12,3
3,15	2,8	120	57,7	197	12,3
4,0	3,5	160	74,6	208	10,0

Packing Data

Diameter (mm)	Electrode Length (mm)	Item Number (1kg pack)	Item Number (multi-kg pack)	Pack Mass (kg)	Approx. No. Electrodes/kg
2,5	350	W072122	W075122	3 x 5,0	50
3,15	350	W072123	W075123	3 x 5,0	34
4,0	350	W072124	W075124	3 x 5,0	22

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