

PRODUCT DATA SHEET

Afrox 312



Afrox 312 is a rutile basic coated low carbon electrode of the 29% chromium, 9% nickel type. The structure is highly resistant to hot cracking and extremely tolerant of dilution from medium and high carbon steels, etc. Afrox 312 is a universal electrode specifically designed for welding steels of

low weldability. The electrode is suitable for welding austenitic manganese steel, medium and high carbon hardenable steels, tools, dies, springs, etc. which may be of unknown composition.

Classifications

AWS	A5.4	E312-16
ISO	3581-A	E29 9 R12
ISO	3581-B	ES 312-16

Typical Chemical Analysis

% Carbon	0,12 max	% Nickel	8,0 - 10,5
% Manganese	0,5 - 2,5 max	% Molybdenum	0,2 max
% Silicon	1,0 max	% Sulphur	0,025 max
% Chromium	28,0 - 32,0	% Phosphorous	0,025 max

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

0,2% Proof Stress	600 MPa min
Tensile Strength	700 MPa
% Elongation on 4d	22 min
Charpy V-Notch at +20°C	30 J min

Packing Data

(DC+ AC 70 OCV min)

Diameter (mm)	Electrode Length (mm)	Current (A)	Item Number (4 electrode sleeve)	Item Number (1kg electrode pack)	Pack Mass (kg)	Item Number (multi-kg pack)
2,5	300	45 - 80	W072692	W072682	3 x 4,0	W075692
3,25	350	75 - 105	W072693	W072683	3 x 4,0	W075693
4,0	350	110 - 150	-	-	3 x 4,0	W075694

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