

SUPERMET 318



SUPERMET 318 can be used to weld titanium or niobium-stabilised grades of molybdenum-bearing austenite stainless steels, or as an alternative electrode for unstabilised grades such as 316/316L. It is not recommended for structural service above about 400°C. It is also used for depositing corrosion resistance overlays and valve seat inlays on medium carbon alloy steels, and for this reason the electrode is normally supplied with a typical ferrite content of 3-14FN.

CLASSIFICATIONS

AWS	A5.4	E318-17
BS EN	1600	E 19 12 3 Nb R 32
DIN	8556	E 19 12 3 Nb R 23

CHEMICAL ANALYSIS

% Carbon	0.025	% Nickel	11.50
% Manganese	0.800	% Molybdenum	2.700
% Silicon	0.700	% Niobium	0.600
% Sulphur	0.010	% Copper	0.100
% Phosphorous	0.020	% Ferrite	9.000
% Chromium	19.00		

**TYPICAL MECHANICAL PROPERTIES
ALL WELD METAL**

Tensile Strength	630 MPa
0.2% Proof Stress	500 MPa
Elongation on 4d	36%
Impact Energy at 20°C	65J

Microstructure
Austenite with 3-14FN (3-12% ferrite), typically 10FN.

PACKING DATA

(DC+ or AC (OCV 55V Min))

Diameter (mm)	Current (A)	Item Number	Canned Pack Mass (Kg)
3.20	75 – 120	078-054	5
4.00	100 – 155	078-056	4.4

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