

PRODUCT DATA SHEET

Afrox Filmax 5183 Afrox TIG 5183

Afrox Filmax 5183 and Aprox TIG 5183 are 4,7% magnesium, 0,7% manganese wires for the welding of the 5XXX series high magnesium (5%) alloys to themselves or to the heat treatable and 7XXX series alloys that needs to meet and exceed tensile strength requirements of 40 000 psi (276 MPa). Aprox Filmax 5183 is suitable for spray arc and pulsed arc transfer using high purity argon on thin sections or an argon/helium mixture (Alushield®) as a shielding gas on thicker sections. Flow rates of 15-20 l/min should be used. Aprox TIG 5183 should be used with a zirconiated tungsten electrode with pure argon or an argon/helium mixture (Alushield®) for thick sections, at flow

rates of 10-15 l/min. For oxy-acetylene gas welding, a neutral flame should be used with aluminium welding flux (Item Number W001777).

Applications

Applications found in the shipbuilding, railway and automotive industry. Also in marine fabrication and repairs, bicycle frames, cryogenic tanks and other high strength low temperature structural aluminium applications.

Classifications

AWS	A5.10	ER5183
EN	18273	Al5183 (AlMg4,5,Mn,O,7)

Typical Chemical Analysis (Wire analysis)

% Silicon	0,25 max	% Zinc	0,25 max
% Iron	0,4 max	% Titanium	0,07 - 0,15
% Copper	0,05 max	% Beryllium	0,0008 max
% Manganese	0,6 - 1,0	% Aluminium	Bal.
% Magnesium	4,3 - 5,2	% Chromium	0,05 - 0,25

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

0,2% Proof Stress	275 MPa
Tensile Strength	125 MPa
% Elongation on 5d	17

Packing Data

MIG			TIG			
Diameter (mm)	Pack Mass (kg)	Item Number	Diameter (mm)	Pack Mass (kg)	Consumable Length (mm)	Item Number
1,0	7,0	W077537	1,6	2,0	1 000	W077529
1,6	7,0	W077539	2,4	2,0	1 000	W077531
-	-	-	3,2	2,0	1 000	W077532
-	-	-	4,0	2,0	1 000	W077533

Recommended shielding gases: Argon or Alushield®

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