Aluminium Alloys (Filler Rods & Wires)

SM 5183






SENOR®

One Stop Solution for Welding & Brazing Consumables

SENOR®

SM 5183 | Aluminium Magnesium | Al Filler Metal

Classifications:

AWS / SFA5.10	: ER 5183
UNS No.	: A95183
ISO 18273 Numerical	: Al5183
ISO 18273 Chemical	: AlMg4.5Mn0.7(A)

Description:

Senor SM 5183 has good fluidity and higher strength. Commonly used with 5083 and 5654 base materials. Used for welding 6XXX series alloys or joining 6XXX to 5XXX.The alloy is not recommended for elevated temperature applications due to its susceptibility to stress corrosion cracking.

Technical Data:

UTS	: 25-28 Kgf/mm^2
YS	: 11-13 Kgf/mm^2
Elongation (L=D)	: 17%
Melting Range	: 579-638°C
Density	: 2.66 gms/cc
Resistance to Corrosion	: A (Gen) A (SCC)
Anodize Color	: White
Electrical Conductivity	: 29% IACS
Shielding Gas	: 100% Argon , Argon/Helium Mixtures , Flow Rate: 30 - 50 CFH (14.2 - 23.6 L/Min)

Chemical Composition (%):

Sl	Cr	Fe	Zn	Cu	Ti	Mn	Be	Mg	Al	Other Total
0.40	0.05-0.25	0.40	0.25	0.10	0.15	0.50-1.00	0.0003	4.3-5.2	Rem.	0.15

Typical Applications:

- Suitable where hight strength and resistance to sea water is required.
- Used in ship building, off shore, cryogenic equipment, aluminum bridges, railway & automobile construction,

Availability :

Standard Size	: 1.6, 2.0, 2.5, 3.2 & 4.0 mm dia in 500 / 1000 mm length
Packing	: 500 mm in 2 kg. & 1000 mm in 5 kg. for TIG welding
Spools	: 0.8, 1.2 & 1.6 mm dia in 6.5 kg. spool for MIG welding

Note On Usage:

1) Follow the recommended welding parameters to achieve good sound welds
2) Do not use excessive currents. Hold short arc. Use good fit-up on joints.

Above are basic guidelines and will vary depending on joint design, number of passes and other factors.

⚠WARNING

Protect yourself and others. Read and understand this warning. Do not remove this warning.

Fumes and Gases can be hazardous to your health

- Before use, read and understand the Material Safety Data Sheet (MSDS), the manufacturer's instructions, and your employer's safety practices.
- If MSDS is not enclosed. Obtain from your employer.
- Keep your head out of the fumes. See Section 5 of the MSDS for specific fume concentration limits.
- Use enough Ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area. If needed, use a proper respirator.
- No hazards exist before this product is used in arc welding.

Electric Shock can kill

- Always wear dry insulating gloves
- Insulate yourself from work and ground.
- Do not touch live electrical parts.

ARC Rays can injure eyes and burn skin

- Wear welding helmet with correct filter.
- Wear correct eye, ear, and body protection.

Welding can cause fire or explosion

- Do not weld near flammable material.
- Watch for fire, keep, extinguisher nearby.

Read American National Standards Z49.1, "Safety In Welding, Cutting and Allied Process." from American Welding Society.