

TM-58

AWS A5.18 ER70S-G
JIS Z 3312 YGW11

Characteristics and Applications:

TM-58 is a solid wire for butt or fillet MAG welding of mild steel and 490N/mm² grade high tensile steel. Due to the pick-up of Ti, The refinement of traveling spheroidal structure can be obtained. The arc is stable. Deep penetration and well spread at high current range TM-58 provides higher deposition efficiency in welding of thick plate. It features less fume generation (25% less than YGW-12) and smooth bead appearance.

It is suitable for welding vehicles, bridges, industrial machinery and buildings.

Notes on usage:

1. E.S.O. (Electrode Stick Out) must be kept between 15-25mm.
2. The proper welding conditions must be adopted according to the purpose as the bead appearance and penetration are varied widely depending on the welding conditions.
3. Use 100% CO₂ or Ar +CO₂ gas mixture as shielding gas.
4. Control within the optimal range of welding conditions for this wire as possible.

Typical chemical composition of wire metal (wt%):

C	Mn	Si	P	S	Ti
0.075	1.60	0.80	0.020	0.02	0.200

Typical mechanical properties of weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) -30°C (-20°F)
460(67)	550(80)	31	65(48)

Sizes and recommended current range (DC <+>) :

Diameter (mm)	1.2	1.6
Amps	90-350	170-400

* The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and TienTai Electrode Co., Ltd. expressly disclaims any liability incurred from any reliance thereon. Typical data is obtained when welded and tested in accordance with AWS specification. Other tests and procedures may produce different results. No data is to be construed as recommendation for any welding condition or technique not controlled by TienTai Electrode Co., Ltd.