

TLH-581

JIS Z 3212 D5016
AWS A5.1 E7018-1 H4
EN499 E 46 4 B 3 2

Characteristics and Applications:

TLH-581 is an iron-powder low hydrogen type electrode for all-position welding of 490N/mm² grade high tensile steel. It is designed for single and multiple pass applications. The product has good welder appeal and produces a stable arc with low spatter generation. TLH-581 produces weld metals with excellent mechanical properties and impact toughness at low temperature (-40°C to -50°C) and low diffusible hydrogen. Its features make the product suitable for low alloy steels, medium carbon steels, heavy steel plates, cast steels, aluminum killed steel of LPG and especially for welding of steels with poor weldability.

Notes on Usage:

1. Be sure to clean up the contaminations on the base metal.
2. Unless the storage condition is secured and the packing is not damaged, it is highly recommended to dry the electrodes at 350-400°C for 1-2 hours before use.
3. Take the back-step method to prevent blowholes at the arc starting.
4. Maintaining short arc length is highly recommended to prevent moisture pick-up.

Typical chemical composition of weld metal (wt%)

C	Mn	Si	P	S
0.08	1.40	0.50	0.02	0.010

Typical mechanical properties of weld metal

YS (MPa)	TS (MPa)	EL %	CVN -45°C J
500	580	30	98

Welding position



Sizes and recommended current range (AC or DC <+>)

Diameter (mm)	2.6	3.2	4.0	5.0	
Length (mm)	350	350	450	450	
Amps	F	80-100	130-150	160-190	200-240
	V&OH	70-100	90-150	130-160	170-200

Approval: ABS, LR

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Tien Tai 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 Tien Tai Electrode Co., Ltd.