

# TS-308LB

AWS A5.4 E308L-15  
EN ISO 3581-B-ES308L-15  
JIS Z3221 ES308L-15

## Characteristics and Applications:

The weld metal of TS-308LB is an austenite microstructure containing controlled  $\delta$  ferrite. The welding can be done in all positions with good X-ray soundness and good mechanical properties. It produces good notch toughness at the temperature as low as  $-196^{\circ}\text{C}$ . The electrode is designed for welding of LNG tank.

## Notes on usage:

- 1.Dry the electrodes at  $300\text{-}350^{\circ}\text{C}$  for 60 minutes and keep it at  $100\text{-}150^{\circ}\text{C}$  before using.
- 2.To make the cooling time as short as possible between  $500\text{-}800^{\circ}\text{C}$  to prevent the intergranular corrosion.
- 3.Clean up the contaminations on the base metal, groove and pass to pass with stainless steel brush.
- 4.Use small heat input to reduce dilution, prevent cracking and improve impact value.

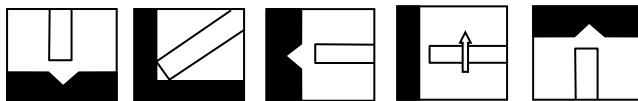
## Typical chemical composition of weld metal (wt%):

	C	Si	Mn	P	S	Ni	Cr	Mo	Cu
AWS	$\leq 0.04$	$\leq 1.00$	0.5-2.5	$\leq 0.04$	$\leq 0.03$	9.0-11.0	18.0-21.0	$\leq 0.75$	$\leq 0.75$
EN ISO	$\leq 0.04$	$\leq 1.00$	0.5-2.5	$\leq 0.04$	$\leq 0.03$	9.0-12.0	18.0-21.0	$\leq 0.75$	$\leq 0.75$
Typical value	0.035	0.65	1.10	0.025	0.005	10.5	18.3	0.07	0.11

## Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) $-196^{\circ}\text{C}$ ( $-320^{\circ}\text{F}$ )
AWS	$\geq 520(75)$	$\geq 30$	-
EN ISO	$\geq 520(75)$	$\geq 25$	-
Typical value	590(86)	49	45(33)

## Welding position:



## Sizes and recommended operating range (DC<+>):

Diameter (mm)	2.6	3.2	4.0	4.8
Length (mm)	300	350	350	350
Current (Amps)	F & H V&OH	60-90 50-80	90-130 80-120	130-170 120-150
			160-200	-

\* 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.