

TFS-300

Basicity index: 2.4

EN ISO 14174 S A FB 2 AC

Characteristics and Applications:

TFS-300 is a neutral bonded flux, which has good weldability, excellent slag removal and smooth bead appearance. Some alloys were suitably added to maintain the stability of the alloy content in weld metal. It features very sophisticated mechanical properties and corrosion resistibility.

- Stainless308, 308L, 316 and 316L butt join.
- Pressure vessel

Notes on usage:

1. Use low heat input to keep the corrosion resistibility and mechanical properties on heat-affected zone unchanged.
2. Bake at 200~300°C for 1-2hr before use.
3. Add reasonable new flux when recycle the used flux so as to maintain good welding quality.

Typical chemical composition of weld metal (wt %):

Wire	C	Mn	Si	P	S	Cr	Ni	Mo
TW-308L	0.04	1.50	0.46	0.020	0.015	19.5	10.7	-
TW-309L	0.04	1.57	0.47	0.023	0.005	22.5	12.5	-
TW-316L	0.04	1.73	0.50	0.025	0.008	18.0	11.5	2.45
TW-317L	0.035	1.43	0.45	0.025	0.013	18.5	13.6	3.38

Typical mechanical properties of weld metal:

Wire	AWS A5.39	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf)		
				-101°C (-150°F)	-110°C (-166°F)	-196°C (-320°F)
TW-308L	F75A32- ER308L/308L	570(83)	40	-	45(33)	40(30)
TW-309L	F75A4- ER309L/309L	545(79)	38	-	60(44)	35(26)
TW-316L	F75A32- ER316L/316L	550(80)	43	-	50(37)	40(30)
TW-317L	F75A15- ER317L/317L	578(84)	36	47(35)	-	-

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