

# TF-650

Basicity index: 1.8

EN ISO 14174 S A AB 1 67 AC H5

## Characteristics and Applications:

TF-650 is an agglomerated, aluminate basic flux, used with single and-or multiple wire process. It's specifically designed for welding longitudinal and spiral pipe, in two-run and-or multiple layer technique. TF-650 has excellent weld bead performance; a low consumption rate and excellent mechanical properties at low temperature can be achieved.

- Pipe steels up to API-5L X-80
- Non-and low alloyed structural steels
- Fine grain structural steels

## Notes on usage:

1. The flux must be re-dried at a temperature of 300~350°C for 1~2hr holding time when it is affected by moisture pick-up.
2. Adding proper quantity of new flux with the used one to maintain good quality of weld metal.

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

Wire	EN ISO 14171-A	C	Si	Mn	Mo	Ni
TSW-E12	S 42 4 AB S2Mo	0.06	0.16	1.34	0.45	--
TSW-E41	S 50 4 AB S3Ni1Mo	0.07	0.25	1.70	0.48	0.9

## Typical mechanical properties of weld metal:

Wire	AWS A5.23	Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf)	Temperature °C(°F)
TSW-E12	F8A5-EA2-A2	516(75)	570(83)	27	60(44)	-46(-50)
TSW-E41	F9A6-EF3-F3	617(89)	706(102)	27	50(37)	-51(-60)

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