

# TF-250

Basicity index: 2.7

EN ISO 14174 S A FB 1 55 AC H5

## Characteristics and Applications:

TF-250 is a high-basic agglomerated submerged arc flux. It is suitable for using DC+ single, AC single, DC+/AC and AC/AC. It provides excellent weld ability even in narrow groove. Due to its neutral behavior, good mechanical properties of weld metal can be controlled by using the appropriate wire grade.

With combination of low phosphorus wires (TSW-E22R or TSW-E23R), the X and J factors can be controlled to satisfy the step cooling requirement.

- Heat treatable and heat resistant low-alloy CrMo steel
- Pressure vessel
- Fine grain structural steels for low temperature requirements
- High tensile fine grain steels

## Notes on usage:

1. Dry the flux at 300~350°C for 2~4hr holding time.
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 24598-A	C	Si	Mn	P	S	Cr	Mo	Cu	Note
TSW-E22	S 55 3 FB CrMo1	0.09	0.25	0.80	0.013	0.008	1.10	0.45	0.03	-
TSW-E22R	S 55 3 FB CrMo1	0.08	0.26	0.81	0.010	0.006	1.10	0.47	0.03	X<15ppm
TSW-E23	S 62 3 FB CrMo2	0.07	0.25	0.65	0.015	0.007	2.25	0.91	0.06	-
TSW-E23R		0.07	0.24	0.63	0.012	0.004	2.20	0.93	0.05	X<15ppm
SubCor H12KN	-	0.05	0.25	1.50	0.011	0.004	0.012	0.03	0.008	Ni:1.73

## 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)	PWHT
TSW-E22	F8P2-EB2-B2	518(75)	605(88)	28	183(135)	-30(-20)	690°C *1hr
TSW-E22R	F8P2-EB2R-B2						
TSW-E23	F9P2-EB3-B3	574(83)	671(97)	26	140(103)	-30(-20)	690°C *1hr
TSW-E23R	F9P2-EB3R-B3						
SubCor H12KN	F8A6-ECG-G	540(78)	630(91)	30	140(103)	-51(-60)	--
	F8P5-ECG-G	523(76)	611(89)	28	150(111)	-46(-60)	620°C *1hr

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