TWH-52-S X TF-81

Characteristics and Applications:

TWH-52-S is a submerged arc flux-cored wire welded with TF-81 neutral flux. Its deposit contains Cr, Ni, Mo, V elements which provide resistance to extreme abrasive wear and hardness even at high temperature.
It is suitable for pinch rolls, work rolls and surfaces subjected to sliding metal/metal wear.

Notes on usage:

1. The DC(+) polarity is recommended.
2. The workpiece should be free of moisture to prevent porosity and enhance the interfacial bonding between parent steel and weld metal, also slow cool-down and PWHT is require to prevent from cracks.
3. To prevent weld crack, the pre-heat and inter-pass temperatures should be between 204-316℃ for massive workpieces, heavy cylinders and highly stressed workpieces.
4. TF-565/TSW-EM12K is recommended as a buffer layer and followed with TWH-31-S/TF-81 as root-pass when the base metal has a poor weldability.

Typical chemical composition (wt%):

	C	Mn	Si	Cr	Mo	V	Ni
Typical value	0.19	2.0	0.6	4.2	2.0	0.5	3.2

Typical weld metal hardness (on mild steel):

Hardness (HRC)	45-50

Suggested welding parameter (DC <+>):

Diameter (mm) / Parameters	3.2
Voltage (Volt)	25-32
Current (Amp)	300-450
Stick out (mm)	30-40

FLUX CORED WIRES

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