# TWH-12-S /TF-81

### Characteristics and Applications:

TWH-12-S is a submerged arc flux-cored wire to provide a modified H12 tool steel deposit which retains hardness at high temperatures. TWH-12-S flux-cored wire is used with TF-81, a neutral flux, for submerged arc welding applications. The combination is suitable for work rolls, pinch rolls and surfaces subjected to sliding metal/metal wear.

#### Notes on usage:

- 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.
- 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..

### Typical chemical composition (wt%):

С	Mn	Si	Cr	Мо	V	W
0.23	1.6	0.6	6.1	1.3	0.2	1.2

### Typical weld metal hardness (on mild steel) :

Hardness (HRC)	47-53
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## Suggested welding parameter DC(<+>):

Diameter (mm) Parameters	3.2
Volt	25-32
Amps	300-450
Stick out(mm)	30-40

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