

# TWH-17-S /TF-81

## Characteristics and Applications:

TWH-17-S/TF-81 is a submerged arc flux-cored wire / flux which produces a low carbon, low alloy weld deposit with a typical hardness of HRC 37. It features good resistance to compression and cold work deformation. The impact resistance is excellent and the crack susceptibility is low. After welding, the deposit could be flame cut or machined. TWH-17-S can be used for both build-up and hardfacing on rollers and idlers where there is metal-to-metal wear. Typical applications include carbon steel crane wheels, idlers, mine car wheels and house rollers, etc..

## Notes on usage:

- 1.TWH-17-S has good resistance to cross checking and is not restricted with regard to deposit thickness.
- 2.Applications that are inherently crack sensitive may require one or more of the following:
  - High preheat and interpass temperatures at 204-260°C .
  - Controlled slow cooling.
  - Stress relieving at 480°C .
  - Minimize layer thickness.

## Typical chemical composition (wt%):

	C	Mn	Si	Cr	Mo
Typical value	0.07	2.6	0.6	2.7	0.7

## Range of weld metal hardness (on mild steel):

Layer	1st layer	2nd layer	3rd layer
Hardness (HRC)	26-30	30-35	34-37

## Suggested welding parameter DC(<+>):

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

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