

# TWH-45-S

## X TF-81

### Characteristics and Applications:

TWH-45-S is a submerged arc flux-cored wire that contains some carbide forming elements in the deposited metal to increase the high temperature hardness. The deposited surface is also suitable for nitrogenizing or hard chrome plating.

Applications of metal to metal wear are commonly used in such as steel mill rolls, paper mill rolls, and mine car wheels.

### Notes on Usage:

1. The DC(+) polarity is recommended.
2. The preheat and inter-pass temperatures between 200-250°C should be kept for massive workpieces, heavy cylinders, and highly stressed workpieces to prevent weld crack.

### Typical chemical composition (wt%)

	C	Mn	Si	Cr	Mo	V
Typical value	0.23	2.5	0.8	2.9	0.5	0.3

### Range of weld metal hardness (On Mild Steel)

Layer	1st layer	2nd layer	3rd layer
Hardness (HRC)	27-32	38-44	43-46

### Suggested welding parameter DC(+)

Dia.	Amps	Volt	Stickout (mm)
φ3.2mm	300-450	25-32	25-30

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