

TWH-31-S

/TF-81

Characteristics and Applications:

TWH-31-S is a flux-cored wire used for submerged arc welding, it produces a low carbon, low alloy pearlitic structure in the deposited metal. After welding, the deposit can easily be machined because hardness is about HRC 31. It is primarily used for build-up on carbon and low alloy steel components.

It is suitable for built-up continuous casting rolls, steel mill rolls, shafts, idlers, journals or workpieces that machinability is required.

Notes on usage:

1. The DC(+) polarity is recommended.
2. To prevent weld crack, the pre-heat and inter-pass temperatures should be between 204-316°C for massive workpieces, heavy cylinders and highly stressed workpieces.

Typical chemical composition (wt%):

C	Mn	Si	Mo
0.14	2.7	0.5	0.6

Range of weld metal hardness (on mild steel):

Layer	1st layer	2nd layer	3rd layer
Hardness (HRC)	18-24	24-27	28-32

Suggested welding parameter (DC<+>):

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

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