TWS-420Mo-S /TF-81

Characteristics and Applications:

TWS-420Mo-S is a submerged arc flux-cored wire that matches with TF-81 neutral flux to produce high performance the weld metal of martensitic stainless steel. It offers excellent resistance to fire cracking, corrosion and unlimited deposition thickness.

It is used for workpieces such as continuous casting rolls, break down roll, straightening roll, and steel mill rolls for high temperature service.

Notes on Usage:

1. When the carbon content of the carbon steel workpiece is over 0.5 wt% or that of low alloy steel workpiece is over 0.45wt%, a buffer layer using mild steel filler metal (root-pass welding by RolClad-17-S with around 300~400℃ pre-heat treatment) is helpful for further overlay.
2. The pre-heat and inter-pass temperatures between 300-400℃ should be kept for massive workpieces, heavy cylinders and highly stressed workpieces to prevent weld cracking.
3. Flux after opening and moisture that is required drying 300~350℃×1hr, before to use.

Typical chemical composition (wt%)

C	Si	Mn	Cr	Mo	(Co+V+Nb)
0.25	0.6	1.0	11.5	1.5	1.7

Typical hardness of weld metal (on mild steel)

Hardness (HRC)	52-56

Suggested welding parameter (DC<+>)

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

FLUX CORED WIRES

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