

ROYAL PRIME-81W

AN ALL POSITION LOW-ALLOY FLUX-CORED
WELDING WIRE FOR WEATHERING STEELS

BASIC ALLOY: CR, CU, NI
AWS/SFA-5.29: E81T1-W2 C
EN ISO 17632-B T553T1-ICA NCC1

KEY FEATURES:

ROFIL-81W all position low alloy steel flux cored wire designed for welding of high strength weather resistant grade steels. it has a nominal composition (wt-%) of 0.5 Cu with additions of Cr and Ni to increase strength ductility and notch toughness in the weld metal. Weld metal is free from porosity and conforms to X-ray soundness.

APPLICATIONS

- welding of weather resistant steels - Corten steels grade A/B, Class 1 steels of type A of SA-533, etc.
- These steels are typically used in bridge construction and other structural components used in highway construction.

SHEILDING GAS

- Welding with CO₂ gas and Ar+ CO₂ gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Cr	Cu
0.12 Max.	0.50-1.30	0.30-0.80	0.030 Max	0.40-0.80	0.45-0.70	0.30-0.75

MECHANICAL PROPERTIES

YS (N/mm ²)	UTS (N/mm ²)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
470 Min.	550-690	19 Min.	- 20C : 27 J min.

WELDING POSITION



DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	✓	✓
1.40	1/ 18"	160-340	18-22	✓	✓
1.60	1/ 16"	180-360	18-22	✓	✓
2.00	5/64"	200-380	18-22	✓	✓