

# GFC 81Ni1

## IDENTIFICATION

GFC 81Ni1, E81T1-Ni1C

## CLASSIFICATION

AWS/SFA 5.29: E81T1-Ni1C

## DESCRIPTION

GFC 81Ni1 is designed for welding of 590 MPa high tensile steel with slow freezing slag system. Typical applications include machineries, shipbuilding, offshore structures, bridges and general fabrications. Tubular rutile flux-cored all position wire for single or multipass welding of carbon, carbon-manganese steels and similar types of steels, including fine grain ones, with CO<sub>2</sub> shielding gas. The good weldability in all positions, excellent bead appearance, less spatter, a fast freezing and easy to remove slag.

## WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	Cr	P	Ni	Mo
0.12 max	1.5 max	0.39 max	0.03 max	0.15 max	0.03 max	0.8 - 1.1	0.35 max

## MECHANICAL PROPERTIES (RANGE)

PWHT	UTS (MPa)	YS (MPa)	EL (%) (L=4D)	CVN Impact Value	
				Temp	Joules
As welded	629 min	564 min	27 min	-20°C	80 - 100
				-30°C	70 - 90
				-40°C	30 - 60
After SR at 610°C for 2 hrs	586 min	552 min	19 min		

## TYPICAL APPLICATIONS

- Ship building, railways wagons, general fabrication welding, pipe welding, bridges, automobile parts, tanks etc.
- Welding of high tensile steel offshore structure, etc.

**SHIELDING GAS :** CO<sub>2</sub>

**FLOW RATE :** 15 - 20 l/min

## PACKING PARAMETERS

Size (mm)	Amps DC (+)	Voltage	Weight / Spool (kg)
1.2	180 - 300	24 - 36	15