

# Supercored 81

TYPE : Rutile

AWS A5.29 / ASME SFA5.29 E81T1-Ni1C  
JIS Z3313 T55 3 T1-1 C A-N2-U H10  
EN ISO 17632-A-T 46 2 1Ni P C 1

## Applications

All position welding for construction machinery, bridge structures and storage tanks.

## Characteristics on Usage

Supercored 81 is an all position flux cored wire designed for 100% CO<sub>2</sub> shielding. You can get smooth arc, and low spatter, good weldability. The weld metal impact value at -30°C (°F) is excellent and has good bead appearance, slag covering is uniform and easy to remove.

## Notes on Usage

- ① Proper preheating(50~150°C)(122~302°F ) and interpass temperature must be used in order to release hydrogen which may cause cracking in weld metal when electrodes are used for medium and heavy plates.
- ② One-side welding defects such as hot cracking may occur with wrong welding parameter such as high welding speed.
- ③ Use 100% CO<sub>2</sub> gas.

## Welding Position



1G 2F 3G 4G  
(PA) (PB)(PF.PG)(PE)

## Current

DC +

## Shielding Gas

CO<sub>2</sub>

## Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Ni
0.03	0.35	1.25	0.011	0.012	0.95

## Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in <sup>2</sup> )	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp. °C (°F)	CVN-Impact Value J (ft · lbs)
570 (82,700)	640 (92,900)	25	-30 (-22)	90 (66)

## Approval

## I Packing(Including Ball Pac)

Dia. (mm)	1.2	1.4	1.6	Spool(kg)	15	20
(in)	.045	.052	1/16	(lbs)	33	44

## Sizes Available and Recommended Currents (Amp.)

Size mm (in)	1.2 (.045)	1.4 (.052)	1.6 (1/16)
F & HF	250~300	260~320	290~350
V-up, OH	180~230	200~260	220~280
V-down	250~310	260~320	280~340