

# SW-307 Cored

Type : Rutile

## Conformances

EN ISO 17633-A-T18 8 Mn P M21/C1 2

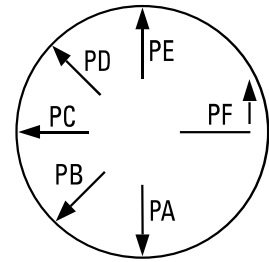
## Applications

- Joining and overlay applications on 13Mn steels
- Cladding Carbon steels
- Welding of dissimilar steels (high Mn to carbon steel)

## Features

- Good porosity resistance
- Good performance in all positions

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>

Ar + 20~25% CO<sub>2</sub>

## Diameter / Packaging

### Diameter Spool Pac

mm (in)	5kg (11lbs)	12.5kg (27.6lbs)	15kg (33lbs)	250kg (551lbs)	300kg (661lbs)	350kg (771lbs)
0.9 (0.035)		✓	✓			
1.0 (0.040)		✓	✓			
1.2 (0.045)	✓	✓	✓			
1.4 (0.052)		✓	✓			
1.6 (1/16)	✓	✓	✓			

SMAW

SAW

GMMAW

GTAW

FCAW

Non-FERROUS

APPENDIX

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

	C	Si	Mn	P	S	Cr	Ni	Mo
100% CO <sub>2</sub>	0.047	0.88	5.74	0.012	0.008	17.9	8.93	0.01
80% Ar + 20% CO <sub>2</sub>	0.037	0.79	5.15	0.012	0.007	17.9	9.17	0.01

**Typical Mechanical Properties of All-Weld Metal**

	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft·lbs)
100% CO <sub>2</sub>	595 (86,275)	47.2	-60 (-76)	67 (49.4)
80% Ar + 20% CO <sub>2</sub>	602(87,290)	46.6	-60 (-76)	62 (45.7)

**Typical Welding Parameters**

Diameter, Polarity Shielding Gas	CTWD mm (in)	Wire Feed Speed m/min (in/min)	Amp. (A)	Volt. (V)	Deposition Rate kg/hr (lb/hr)
<b>1.2mm (0.045 in) DC+</b>					
100% CO <sub>2</sub>	20 (4/5)	6.2 (244)	140	23~26	2.6 (5.7)
		9.0 (354)	180	27~30	3.8 (8.4)
		12.0 (472)	210	28~31	4.6 (10.1)
80% Ar + 20% CO <sub>2</sub>	20 (4/5)	6.2 (244)	140	23~26	2.7 (5.9)
		9.0 (354)	180	27~30	3.7 (8.3)
		12.0 (472)	210	27~30	4.8 (10.6)
<b>1.6mm (1/16 in) DC+</b>					
100% CO <sub>2</sub>	25 (1)	3.7 (146)	180	24~27	3.0 (6.6)
		6.4 (250)	250	25~28	4.5 (9.9)
		8.9 (350)	290	26~29	5.5 (12.1)
80% Ar + 20% CO <sub>2</sub>	25 (1)	3.7 (146)	180	24~27	3.1 (6.8)
		6.4 (250)	250	25~28	4.6 (10.1)
		8.9 (350)	290	26~29	5.7 (12.6)