

# SC-420MC

Type : Rutile



## Conformances

AWS A5.36/ ASME SFA5.36 E71T1-C1A0-CS1 H4  
E71T1-M21A0-CS1 H8  
(AWS A5.20/ ASME SFA5.20 E71T-1C H4/-1M H8)  
EN ISO 17632-A-T 42 2 P C1 1 H5  
EN ISO 17632-A-T 42 2 P M21 1 H5  
LR 3YS H5  
BV SA3YM HHH

DNV-GL IIIYMS H5  
RINA 3YS H5  
TÜV EN ISO 17632-A-T 42 2 P M21(C1) H5  
DB EN ISO 17632-A-T 42 2 P M21(C1) H5  
CE

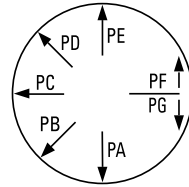
## Applications

- Shipbuilding
- Structural fabrication
- General fabrication
- Offshore structure

## Features

- Low spatter and excellent performance
- Good arc performance and fast freezing slag
- Use 100% CO<sub>2</sub> gas or Ar-CO<sub>2</sub> mixture(Dual gas)
- Better performance in V-up position
- Good low Hydrogen level(H5)

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>  
Ar + 20~25% CO<sub>2</sub>

## Diameter / Packaging

Diameter	Spool			Pac		
	5kg (11lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
mm (in)	5kg (11lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
1.2 (0.045)	√	√				

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

	C	Si	Mn	P	P
100% CO <sub>2</sub>	0.05	0.40	1.25	0.010	0.005

**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)
100% CO <sub>2</sub>	550 (79,750)	590 (85,550)	28.0	-20 (-4)	80 (59)
80% Ar + 20% CO <sub>2</sub>	585 (84,825)	640 (92,820)	26.0	-20 (-4)	105 (77)

**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)	Efficiency (%)
<b>1.2mm (0.045 in) DC+</b>						
100% CO <sub>2</sub>	25 (1)	4.5 (175)	120~160	17~22	1.5 (3.3)	86~88
		6.4 (250)	135~175	18~24	2.2 (4.8)	
		7.6 (300)	150~180	19~25	2.5 (5.5)	
		8.9 (350)	175~205	22~27	3.0 (6.6)	
		10.2 (400)	185~220	24~29	3.5 (7.6)	
		11.5 (450)	220~260	25~30	3.8 (8.4)	
		12.8 (500)	250~290	26~31	4.4 (9.6)	
80% Ar + 20% CO <sub>2</sub>	25 (1)	4.5 (175)	120~160	18~23	1.5 (3.3)	86~88
		6.4 (250)	135~175	19~25	2.2 (4.8)	
		7.6 (300)	150~180	20~26	2.5 (5.5)	
		8.9 (350)	175~205	23~28	3.0 (6.6)	
		10.2 (400)	185~220	25~30	3.5 (7.6)	
		11.5 (450)	220~260	26~31	3.9 (8.6)	
		12.8 (500)	250~290	27~32	4.3 (9.5)	
		15.3 (600)	280~320	28~33	5.2 (11.4)	

SWAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX