Flux Cored Wire for Mild Steel

Description & Applications

SC-420MC

- SC-420MC is a titania flux cored wire applicable for all-position welding by 100% CO_2 shielding gas or Ar + 20~25% CO_2 shielding gas.
- These properties make for a varied range of usages in steel construction, ship building, Bridge structure, chemical plant machinery and other metal fabrication

Features

- Excellent all position weldability
- Soft arc and beautiful bead appearance
- Low hydrogen level(H5) and good crack resistance

Note on Usage

- All Positions
- Use 100% CO_2 gas or Ar+CO_2 mixture(Dual gas)
- DC+

Specifications

- AWS A5.36 E71T1-C1(M21)A0-CS1 H4(H8)
- EN ISO 17632-A T42(T46) 2 P C(M) 1 H5(H5)

Weld-ability (3G)

100% CO_2

200A / 26V

Ar+20% CO_2

200A / 25V

Mechanical properties of weld metal

Gas	YS (MPa)	TS (MPa)	EL (%)	Impact Value (J)	
				Tem(℃)	Avg.(J)
100% CO_2	520	570	28.0	0	85
				-20	60
Ar+ 20% CO_2	575	630	26.0	0	105
				-20	82

Gas	Chemical composition (wt%)				
	C	Si	Mn	P	S
100% CO_2	0.035	0.45	1.15	0.010	0.006
Ar+ 20% CO_2	0.040	0.60	1.35	0.010	0.006

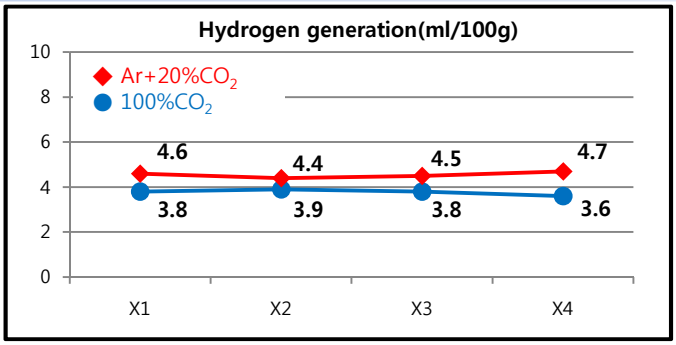
❖Tested by AWS Rules

HYUNDAI WELDING

SC-420MC

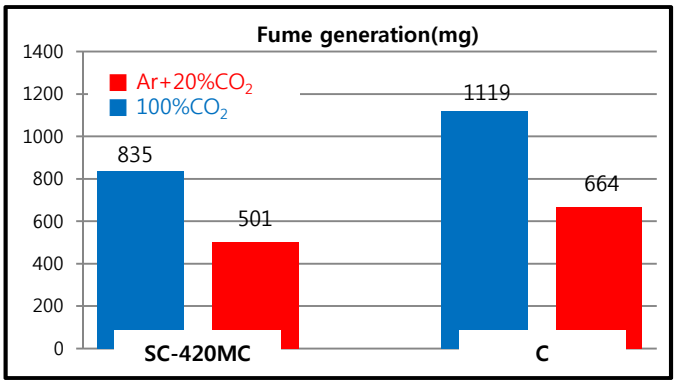
Hydrogen generation

* Diameter : 1.2mm,
* Welding speed : 30cm/min.
* Gas flow : 100%CO_2 / Ar+20%CO_2, 20ℓ/min.
* Stick-out : 20mm,
* Parameter : 240A / 27V(100%CO_2)
  240A / 27V(Ar+20%CO_2)

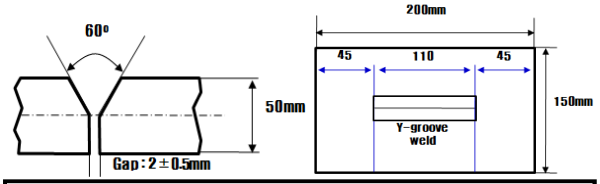


Fume generation

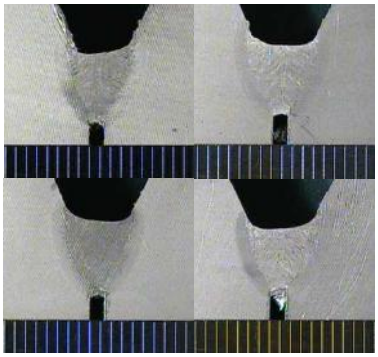
* Diameter : 1.2mm
* Gas flow : : 100%CO_2 / Ar+20%CO_2, 20ℓ/min.
* Stick-out : 20mm
* Parameter : 280A / 32V(100%CO_2),
  280A / 30V(Ar+20%CO_2)
* Speed : 30cm/min
* Welding time : 30s
* Fume collect time : 2m 30s



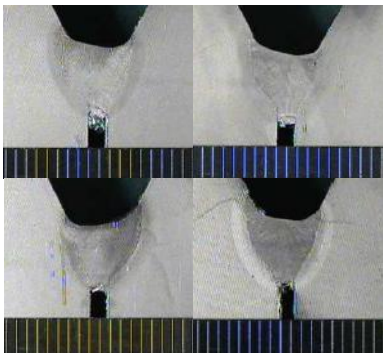
Crack resistance (Cold crack)



* JIS Z 3158 ; Y-groove weld cracking Test
* Preheat : No preheat (72hrs holding)
* 240A/27V/55cpm (Heat Input : 7kJ/㎝)
* Shielding Gas : 100%CO2
  Ar+20%CO2, 20ℓ/min



100%CO_2 : No Crack



Ar+20%CO_2 : No Crack

Packages

Type	Weight (kg)	1.2mm	1.4mm
Spool	12.5	O	O
	15.0	O	O

Proper Welding Parameters

Positions	1.2mm	1.4mm
F & HF	100~280A	120~300A
V-up & OH	140~260A	160~280A
V-Down	100~280A	120~300A

HYUNDAI WELDING