

# SM-80CM

Heat resistance – low alloy steel

## Conformances

AWS A5.28/ ASME SFA5.28 ER80S-G

JIS Z3317 YG1CM-A

EN ISO 14341-B G S2M3

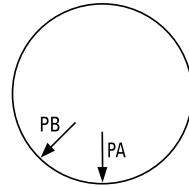
## Applications

- Structural fabrication
- Offshore
- Pressure vessels
- Machinery
- Chemical industry

## Features

- MIG welding for boiler steam pipe of Steam power generation and 1.0~1.25%Cr-0.5%Mo heat resisting steel using for refining oil & chemical industrial machine tool.
- Good TS and Impact value in a high temperature after heat treatment.

## Welding Position



## Current

DC +

## Shielding Gas

100% Ar

Ar + 2% O<sub>2</sub>

## Diameter / Packaging

Diameter	Spool			Ball Pac		
	5kg (11lbs)	15kg (33lbs)	20kg (44lbs)	250kg (551lbs)	300kg (661lbs)	350kg (771lbs)
mm (in)						
0.8 (0.033)	✓	✓	✓	✓	✓	✓
0.9 (0.035)	✓	✓	✓	✓	✓	✓
1.0 (0.040)	✓	✓	✓	✓	✓	✓
1.2 (0.045)	✓	✓	✓	✓	✓	✓
1.4 (0.052)	✓	✓	✓	✓	✓	✓
1.6 (1/16)	✓	✓	✓	✓	✓	✓

**Typical Chemical Composition of the Wire(%)**

C	Si	Mn	Cr	Mo
0.09	0.67	1.02	1.19	0.45

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

	YS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft.-lbs)	PWHT
As welded with 100% Ar	630 (91,500)	27	0 (32) -20 (-4)	140 (103) 120 (88)	690°C × 1Hr

**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 (0.045in), DC +</b>					
100%Ar	20 (3/4)	4.2 (165)	150	16	1.9 (4.2)
		7.4 (291)	200	22	3.1 (6.8)
		12.1 (480)	280	29	5.6 (12.3)

SMW

SAW

GMW

GTAW

FCAW

Non-FERROUS

APPENDIX