

Supercored 81MAG

Classification

AWS AWS A5.29 / ASME SFA-5.29 E81T1-Ni1M H4
EN ISO 17632-A T50 6 1Ni P M21 2 H5

Welding Positions



Features

- Designed for welding with Ar+20~25%CO2 shielding gas
- Good impact value at low temperature (As welded and PHWT)
- low hydrogen level (H4)

Polarity

DC+

Application Areas

- Shipbuilding
- Oil and gas construction
- Pipe & Pipeline
- Offshore structure

Shielding Gas

Ar+20~25% CO2

Approvals

ABS	BV	DNV	LR	RINA	RS	CWB	CE	DB	TUV
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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

Shielding Gas	C	Si	Mn	P	S	Ni
Ar+20~25% CO2	0.05	0.28	1.20	0.010	0.010	0.93

Typical Mechanical Properties of All-Weld Metal

Shielding Gas	Condition	Yield Strength MPa(ksi)	Tensile Strength MPa(ksi)	Elongation (%)	Temperature °C (°F)	Impact Toughness J (ft·lbs)
Ar+20~25% CO2	As Welded	550(80)	590(86)	26	-30 (-20) -60 (-75)	100 (74) 60 (44)
Ar+20~25% CO2	PWHT 620°C×2hr	510(74)	570(83)	28	-46(-50)	90(66)

SMAG

GMAW

GTAW

FCAW

Metal-cored Wire

SAW Wire

SAW Flux

Diameter / Welding Parameters / Packaging

Wire Diameter mm(in)	Current (A)	Packaging
1.2 (0.045)	110~280	Spool 5kg (11lbs), 12.5kg (28lbs), 15kg (33lbs), 20kg (44lbs) Drum 100kg (221lbs), 200kg (441lbs), 250kg (551lbs)
1.4 (0.052)	110~300	
1.6 (1/16)	110~320	

SMW

GMW

GTA

FCW

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