



SL-71MAG

Seamless Cored Wire (M21 Shielding Gas) challenging the limits of low hydrogen

Introduction to Seamless Cored Wires



Within FCAW (Flux Cored Arc Welding), seamless cored wires offer optimal protection against moisture reabsorption. During use, moisture cannot penetrate into the filling since there is no closed seam running over the wire length. This extremely low level of diffusible hydrogen prevents the weld from hydrogen induced cracking or cold cracking.

SL-71MAG is a seamless rutile flux cored wire applicable for all-positional welding with Ar + 20% CO₂ shielding gas.

These properties make SL-71MAG the perfect seamless cored wire for industries such as shipbuilding, steel construction, bridges, offshore, pipes, and pressure vessels.

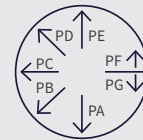
FCAW

Specifications

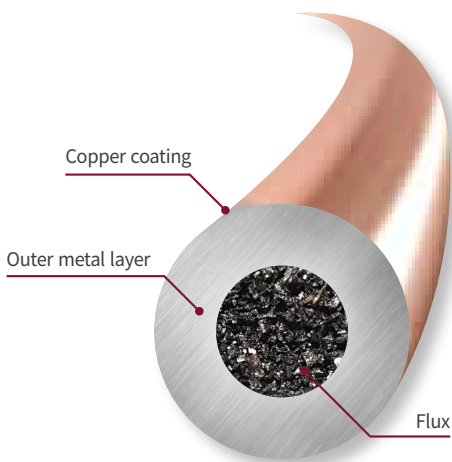
- AWS A5.20 E71T-1M/-9M H4
- EN ISO 17632-A: T46 4 P M21 1 H5

Welding Position

- All position welding



Features & Benefits



- Optimal protection against hydrogen induced cracking, due to extremely low diffusible hydrogen content (under 3ml/100g weld metal)
- Superior wire feeding properties, and excellent weldability in all positions
- Excellent impact properties in low temperature
- Use Ar+20% CO₂ shielding gas
- Stable arc and deep penetration into base metal
- Unique powder filling system, ensuring even composition of core
- Environmentally friendly and safe to use



Mechanical Properties of All Weld Metal

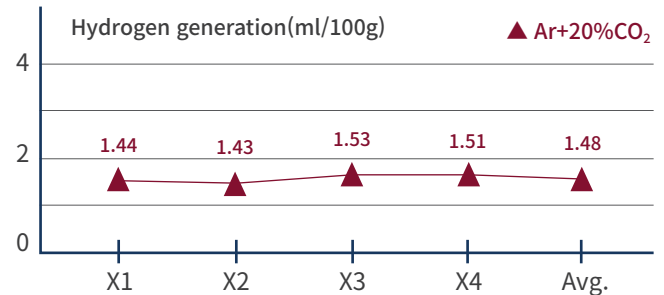
Shielding Gas	Yield Strength	Tensile Strength	Elongation	CVN Impact Value			
				Temperature °C (°F)	Avg. J (ft·lbs)	Temperature °C (°F)	Avg. J (ft·lbs)
M21 (Ar+20% CO ₂)	Mpa (lbs/in ²)	Mpa (lbs/in ²)	%	Temperature °C (°F)	Avg. J (ft·lbs)	Temperature °C (°F)	Avg. J (ft·lbs)
	540 (78,400)	580 (84,200)	28	-30 (-20)	82 (60)	-40 (-40)	55 (41)

Chemical Composition of All Weld Metal

Shielding Gas	Chemical Composition of All Weld Metal(wt%)				
	C	Si	Mn	P	S
M21 (Ar+20% CO ₂)	0.04	0.43	1.41	0.017	0.005

Diffusible Hydrogen Generation

Shielding Gas	Diffusible Hydrogen Contents (ml/100g)				
	X1	X2	X3	X4	Avg.
M21 (Ar+20% CO ₂)	1.44	1.43	1.53	1.51	1.48



Packaging

Diameter	Spool	
	5kg (11lbs)	15kg (33lbs)
mm (in)		
1.2 (0.045)	V	V
1.4 (0.052)	V	V
1.6 (1/16)	V	V

Proper Welding Parameters

Item	1.2mm (0.045in)	1.4mm (0.052in)	1.6mm (1/16in)
	Current (A)	220-300	250-350
Voltage (V)	23-32	25-33	25-35
Stick-out (mm)	15-20	15-20	18-25
Flow rate (l/min)	15-25	15-25	15-25