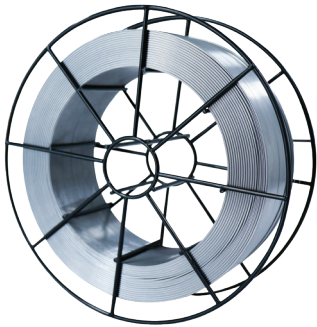


SM-70EN eco C/F

Non-Copper Coated MIG Wire for Mild Steel

Introduction



SM-70EN eco C/F (Copper Free) is a non-copper coated G4Si1/ER70S-6 MIG wire for mild steel designed for all-position welding. SM-70EN eco C/F features a slightly higher silicon and manganese content than SM-70 eco C/F, resulting in increased weld metal strength. The higher silicon levels improve resistance to surface impurities and help achieve smooth, reliable welds. SM-70EN eco C/F is compatible with C1 or M21 shielding gas (EN ISO 14175).

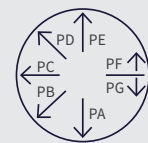
SM-70EN eco C/F offers excellent starting performance, smooth feeding at high speeds and long distances, a stable arc at high currents, minimal spatter, low fume emissions, reduced contact tip wear, and enhanced corrosion resistance.

Specifications

- AWS A5.18 ER70S-6
- EN ISO 14341-A G 42 3 C1 4Si1
G 46 4 M21 4Si1

Welding Position

- All position welding



Approvals

Shielding gas	Welding Position	Register of shipping & Size mm(in)
C1 (100% CO ₂)	All	CE
M21 (80% Ar + 20% CO ₂)		

Mechanical Properties of All Weld Metal

Item	Tensile Test			CVN Impact Value	
	YS MPa(lbs/in ²)	TS MPa(lbs/in ²)	EL (%)	Temp °C(°F)	Avg. J(ft-lbs)
C1 (100% CO ₂)	498 (72,000)	596 (86,000)	23.5	-30 (-22)	73 (54)
M21 (80% Ar + 20% CO ₂)	532 (77,000)	627 (91,000)	22.5	-40 (-40)	66 (49)
AWS A5.18 ER70S-6	≥ 400	≥ 490	≥ 22	Avg. ≥ 27J at -30°C	
EN ISO 14341-A G 42 3 C1 4Si1	≥ 420	500~640	≥ 20	Avg. ≥ 47J at -30°C	
EN ISO 14341-A G 46 4 M21 4Si1	≥ 460	530~680	≥ 20	Avg. ≥ 47J at -40°C	

Consumable : SM-70EN eco C/F Diameter : 1.2mm (0.045in) Spool : 15kg (33lbs)

Chemical Composition of Wire

Item	Chemical Composition of Wire (wt%)					
	C	Si	Mn	P	S	Cu
SM-70EN eco C/F	0.10	0.86	1.75	0.010	0.009	0.026
AWS A5.18 ER70S-6	0.06~0.15	0.80~1.15	1.40~1.85	≤ 0.025	≤ 0.035	≤ 0.50
EN ISO 14341-A G4Si1	0.06~0.14	0.80~1.20	1.60~1.90	≤ 0.025	≤ 0.025	≤ 0.35

Packaging

Diameter mm (in)	Spool kg (lbs)	Pac kg (lbs)
0.8 (0.030)	5 (11) 15 (33)	250 (551) 300 (661)
0.9 (0.035)		
1.0 (0.040)		
1.2 (0.045)		
1.6 (1/16)		

Proper Welding Parameters

Shielding Gas	Welding Position	Base Metal	
		6~15mm (0.236~0.590in)	15~25mm (0.590~0.984in)
C1 (100% CO ₂) M21 (80% Ar + 20% CO ₂)	All	≤ 250A	≥ 250A