

# SM-70EN X

## General Purpose Solid Wire for Non-alloy and Fine-grain Steels

### Introduction



SM-70EN X is a versatile solid wire designed for all-position welding with short-circuiting transfer. It features slightly higher silicon and manganese levels than SM-70X, providing increased weld metal strength and improved resistance. SM-70EN X is compatible with C1 or M21 shielding gas (EN ISO 14175).

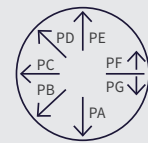
SM-70EN X delivers excellent deposition efficiency and deep penetration, providing consistent and reliable welding performance. Its balanced combination of efficiency, reliability, and adaptability makes it an ideal solution for a wide range of demanding welding applications.

### 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 <sub>2</sub> )	All	CE, DB, TUV
M21 (80% Ar + 20% CO <sub>2</sub> )		

### Mechanical Properties of All Weld Metal

Item	Tensile Test			CVN Impact Value	
	YS MPa(ksi)	TS MPa(ksi)	EL (%)	Temp °C(°F)	Avg. J(ft-lbs)
C1 (100% CO <sub>2</sub> )	503 (73)	596 (86)	28	-30 (-22)	62 (46)
EN ISO 14341-A G 42 3 C1 4Si1	≥ 420	500~640	≥ 20	Avg. ≥ 47J at -30°C	
M21 (80% Ar + 20% CO <sub>2</sub> )	501 (73)	602 (87)	25	-40 (-40)	55 (41)
EN ISO 14341-A G 46 4 M21 4Si1	≥ 460	530~680	≥ 20	Avg. ≥ 47J at -40°C	

Consumable : SM-70EN X Diameter : 1.2mm (0.045in) Spool : 15kg (33lb)

### Chemical Composition of Wire

Item	Chemical Composition of Wire (wt%)				
	C	Si	Mn	P	S
SM-70EN X	0.086	0.89	1.75	0.009	0.010
AWS A5.18 ER70S-6	0.06~0.15	0.80~1.15	1.40~1.85	≤ 0.025	≤ 0.035
EN ISO 14341-A G4Si1	0.06~0.14	0.80~1.20	1.60~1.90	≤ 0.025	≤ 0.025

Consumable : SM-70EN X Diameter : 1.2mm (0.045in) Spool : 15kg (33lb)

### Packaging

Diameter mm (in)	Spool kg (lb)	Pac kg (lb)
0.8 (0.030)	5 (11) 15 (33)	250 (551) 300 (661)
1.0 (0.040)		
1.2 (0.045)		
1.4 (0.052)		