

SM-70X

General Purpose Solid Wire for Mild Steel

Introduction



SM-70X is a versatile solid wire designed for all-position welding with short-circuiting transfer. It offers excellent deposition efficiency and deep penetration, ensuring effective welding performance for a wide range of applications. Compatible with C1 or M21 shielding gas (EN ISO 14175), SM-70X guarantees consistent weld quality with minimal defects.

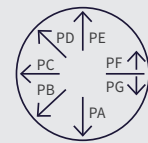
With its combination of efficiency, reliability, and adaptability, SM-70X is an ideal choice for challenging welding projects.

Specifications

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

Welding Position

- All position welding



Approvals

Shielding gas	Welding Position	Register of shipping & Size mm(in)
C1 (100% CO ₂)	All	CE, DB, TUV
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)	449 (65,000)	547 (79,000)	24.0	-30 (-22)	60 (44)
M21 (80% Ar + 20% CO ₂)	436 (63,000)	550 (80,000)	26.5	-40 (-40)	64 (47)
AWS A5.18 ER70S-6	≥ 400	≥490	≥ 22	Avg. ≥ 27J at -30°C	
EN ISO 14341-A G 42 3 C1 3Si1	≥ 420	500~640	≥ 20	Avg. ≥ 47J at -30°C	
EN ISO 14341-A G 42 4 M21 3Si1	≥ 420	500~640	≥ 20	Avg. ≥ 47J at -40°C	

Consumable : SM-70X 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-70X	0.08	0.87	1.52	0.012	0.015	0.15
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 G3Si1	0.06~0.14	0.70~1.00	1.30~1.60	≤ 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	Distance between Tip and 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