

Supercored 70NS

Metal-cored wire for mild steel

Introduction



Supercored 70NS is a gas-shielded metal-cored wire designed to combine the high deposition rates characteristic of flux-cored wires with the superior efficiency of solid wires. Utilizing M20 and M21 mixed gases in accordance with EN ISO 14175, it provides an exceptionally smooth and stable arc, while ensuring minimal spatter and reduced slag coverage.

Widely used in structural engineering, heavy equipment, automotive, and shipbuilding, Supercored 70NS ensures efficiency and precision across diverse applications.

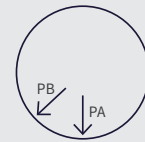
Specifications

- AWS A5.18 E70C-6M
- EN ISO 17632-A – T42 3 M M 21 3 H5

AWS D1.8 is available upon request

Welding Position

- Flat, horizontal



Approvals

Shielding gas	Welding Position	Register of shipping & Size mm(in)								
		JIS	ABS	LR	BV	DNV-GL	TUV	CWB	DB	EN
M21 (80% Ar + 20% CO ₂)	PA, PB	Z3313 T49 3 T15 0 M A H5	3SAH5, 3YSA 0.9-1.6 (0.035- 1/16)	3S, 3YSH5 0.9-1.6 (0.035- 1/16)	SA3M, SA3YM HHH 0.9-1.6 (0.035- 1/16)	IIIYMS (H5) 0.9-1.6 (0.035- 1/16)	EN ISO 17632-A - T 42 3 M M 3	CSA W48 E492C- 6M-H4	DIN EN ISO 17632-A - T 42 2 M M 3	3YS H5
M20 (90% Ar + 10% CO ₂)	PA, PB	Approval certificates are currently pending, with the certification process in progress as of December 2024.								

Mechanical Properties of All-Weld Metal

Item	Tensile Test			Impact Test (CVN - Joule)				
	YS (MPa)	TS (MPa)	EL (%)	Temp °C(°F)	X1	X2	X3	Avg.(J)
M21 (80% Ar + 20% CO ₂)	482	563	30.2	-30(-22)	78	75	76	76
M20 (90% Ar + 10% CO ₂)	495	578	29.4	-30(-22)	65	67	62	65
AWS A5.18 E70C-6M	≥400	≥480	≥22	-30(-22)	≥27			

Consumable : Supercored 70NS Diameter : 1.2mm Spool : 15kg

Chemical Composition of All-Weld Metal

Item	Chemical Composition of All-Weld Metal (wt%)					
	C	Si	Mn	P	S	Ni
M21 (80% Ar + 20% CO ₂)	0.042	0.59	1.53	0.009	0.006	0.018
M20 (90% Ar + 10% CO ₂)	0.044	0.65	1.56	0.010	0.006	0.019
AWS A5.18 E70C-6M	≤0.12	≤0.90	≤1.75	≤0.03	≤0.03	≤0.50

Consumable : Supercored 70NS Diameter : 1.2mm Spool : 15kg

Packaging

Diameter mm (in)	Spool kg (lbs)	Pac kg (lbs)
1.2 (0.045)	5 (11) 15 (33) 20 (44)	250 (551) 300 (661) 350 (771)
1.4 (0.052)		
1.6 (1/16)		

Proper Welding Parameters

Shielding Gas	Welding Position	Wire diameter		
		1.2mm (0.045in)	1.4mm (0.052in)	1.6mm (1/16in)
M21 (80% Ar + 20% CO ₂) M20 (90% Ar + 10% CO ₂)	F & HF	200-300A	260-320A	290-340A