

# Supercored 70NS

Type : Metal-Cored

Supercored 70NS



## Conformances

AWS A5.18/ ASME SFA5.18 E70C-6M  
 JIS Z3313 T49 3 T15-0 M A H5  
 EN ISO 17632-A-T T 42 3 M M 3 H5  
 ABS 3SAH5, 3YSA  
 LR 3S,3YSH5  
 BV SA3M,SA3YM HHH  
 DNV IIIYMS H5

GL 3YH5S  
 TÜV EN ISO 17632-A-T42.3MM3  
 CWB CSA W48 E492C-6M-H4  
 CE  
 DB DINENISO17632-A-T42.3MM3  
 RINA 3YS H5

## Applications

- Machinery
- Structural fabrication
- Automotive or robotic welding.
- Shipbuilding

## Features

- Designed for welding with Ar + CO<sub>2</sub> shielding gas
- High deposition rates, stable arc, travel speed
- Low spatter
- Good anti-porosity

## Welding Position



1G 2F 3G  
 (PA) (PB) (PF-PG)

## Current

DC +

## Shielding Gas

Ar + CO<sub>2</sub>

## Diameter / Packaging

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

## Typical Chemical Composition of All-Weld Metal (%)

	C	Si	Mn	P	S
80% Ar + 20% CO <sub>2</sub>	0.038	0.66	1.63	0.012	0.005
90% Ar + 10% CO <sub>2</sub>	0.036	0.69	1.67	0.012	0.005

## Typical Mechanical Properties of All-Weld Metal

	YS Mpa(lbs/in <sup>2</sup> )	TS Mpa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft-lbs)
80% Ar + 20% CO <sub>2</sub>	481 (69,700)	566 (82,000)	24.4	-30 (-22)	50 (37)
90% Ar + 10% CO <sub>2</sub>	492 (71,340)	564 (81,700)	24.4	-30 (-22)	49 (36)

## Typical Operating Procedures

Diameter, Polarity Shielding Gas	CTWD mm (in)	Wire Feed Speed m/min (in/min)	Voltage (volts)	Approx. Current (amps)	Deposition Rate kg/hr (lb/hr)	Efficiency (%)
1.2mm (0.045 in) DC+						
Flat & Horizontal						
90% Ar + 10% CO <sub>2</sub>	19-25 (3/4-1)	7.3 (288)	22 - 26	190-210	3.4 (7.6)	90-96
		9.7 (382)	23 - 27	240-260	4.5 (9.7)	
		12.2 (489)	24 - 30	280-310	5.9 (12.8)	
1.4mm (0.052 in) DC+						
Flat & Horizontal						
90% Ar + 10% CO <sub>2</sub>	19-25 (3/4-1)	6.7 (261)	22 - 26	250-270	3.8 (8.3)	92-96
		7.8 (307)	25 - 31	290-310	4.9 (10.4)	
		9.4 (370)	28 - 32	330-350	5.5 (12.0)	
1.6mm (1/16 in) DC+						
Flat & Horizontal						
90% Ar + 10% CO <sub>2</sub>	25-32 (1-1 1/4)	5.6 (220)	26 - 32	290-310	4.5 (9.3)	93-96
		6.8 (270)	29 - 33	340-350	5.6 (12.1)	
		7.8 (310)	31 - 34	350-370	6.7 (14.3)	