

OK ARISTOROD 12.50

AWS SFA5.18: ER70S-6

FEATURES

OK AristoRod 12.50 is a MIG wire featuring ESAB's proprietary ASC (Advanced Surface Characteristics) technology. The unique wire surface of AristoRod improves feedability and arc stability, provides extended corrosion resistance and arc starting properties, and reduces contact tip wear. AristoRod 12.50 contains sufficient levels of manganese and silicon to provide a fluid weld puddle with superb wetting action. The high levels of manganese and silicon also make AristoRod 12.50 a good choice for welding over moderate to high levels of rust and mill scale. Shielding gas choices for AristoRod 12.50 include 100% CO₂, argon/CO₂ mixtures, argon/O₂ mixtures, and other argon based mixed gas blends. AristoRod 12.50 is used to weld carbon steels typically used in structural, automotive, agricultural and heavy equipment, and other general fabrication.

CLASSIFICATIONS AND APPROVALS

- DNV III YMS
- CWB CSA W48: ER49S-6
- BV SA3YM
- ABS 3SA,3YSA
- DB 42.039.29
- AWS SFA5.18: ER70S-6
- GL 3YS
- LR 3S 3YS
- VdTUV 10052

WELDING PROCESS

- GMAW (MIG)

INDUSTRIES

- Automotive
- Mobile Machinery
- General Fabrication
- Shipbuilding

TYPICAL MECHANICAL PROPERTIES

90% Ar/10% CO ₂	
Yield Strength	66 ksi, 455 MPa
Tensile Strength	82 ksi, 565 MPa
Elongation in 2"	27%
Reduction of Area	56%
CVN (@-20°F)	82 ft-lbs, 111J
75% Ar/25% CO ₂	
Yield Strength	66 ksi, 455 MPa
Tensile Strength	82 ksi, 565 MPa
Elongation in 2"	28%
Reduction of Area	61%
CVN (@-20°F)	44 ft-lbs, 111 J
100% CO ₂	
Yield Strength	65 ksi, 448 MPa
Tensile Strength	78 ksi, 538 MPa
Elongation in 2"	25%
Reduction of Area	70%
CVN (@-20°F)	27 ft-lbs, 37 J

CHARPY V-NOTCH PROPERTIES

Testing Temperature -40°F (-40°C)	
As Welded 75% Ar / 25% CO ₂	
70 ft-lb, 95 J	
Testing Temperature -4°F (-20°C)	
As Welded 75% Ar / 25% CO ₂	
51 ft-lb, 70 J	

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WELD METAL ANALYSIS	
90% Ar/10% CO ₂	
C	0.08%
Mn	1.22%
Si	0.730%
P	0.013%
S	0.012%
Cu	0.01%
75% Ar/25% CO ₂	
C	0.08%
Mn	1.19%
Si	0.68%
P	0.012%
S	0.012%
Cu	0.02%
100% CO ₂	
C	0.07%
Mn	1.00%
Si	0.56%
P	0.012%
S	0.011%
Cu	0.01%

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DEPOSITION TABLE					
Electrode Diameter in (mm)	Amps	Deposition Rate lbs./hr (kg/hr)			
		98% Ar 2% O ₂ *98% Eff.	75% Ar 25% O ₂ *96% Eff.	Straight CO ₂ *96% Eff.	
.030 (0.8)	75	2.0, 0.91	1.9, 0.86	1.8, 0.82	
	100	2.6, 1.18	2.6, 1.18	2.5, 1.13	
	150	4.1, 1.86	4.0, 1.81	3.9, 1.77	
	200	6.8, 3.08	6.7, 3.04	6.5, 2.95	
.035 (0.9)	80	2.2, 1.00	2.1, 0.95	2.0, 0.91	
	100	2.7, 1.22	2.7, 1.22	2.6, 1.18	
	150	4.2, 1.90	4.1, 1.86	4.0, 1.81	
	200	6.2, 2.81	6.0, 2.72	5.9, 2.68	
	250	9.0, 4.08	8.8, 3.99	8.6, 3.90	
	.045 (1.2)	100	2.1, 0.95	2.0, 0.91	1.9, 0.86
		125	2.8, 1.27	2.8, 1.27	2.7, 1.22
		150	3.6, 1.63	3.5, 1.59	3.4, 1.54
200		5.6, 2.54	5.5, 2.49	5.3, 2.40	
	250	7.8, 3.58	7.6, 3.45	7.4, 3.36	
	300	10.2, 4.63	10.0, 4.53	9.7, 4.40	
	350	13.2, 5.99	12.9, 5.85	12.5, 5.67	
	1/16 (1.6)	250	6.5, 2.95	6.4, 2.90	6.2, 2.81
275		7.7, 3.49	7.6, 3.45	7.3, 3.31	
300		9.0, 4.08	8.8, 3.99	8.5, 3.86	
350		11.3, 5.13	11.0, 4.99	10.7, 4.85	
	400	14.0, 6.35	13.7, 6.21	13.3, 6.03	
	450	17.4, 7.89	17.1, 7.76	16.5, 7.48	

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PART NUMBER / PRODUCT INFORMATION	
Part Number	Description
1A50086900	OK 12.50 030X33# PLW SP
1A50096910	OK 12.50 035X40# PLW SP
1A50106910	OK 12.50 040X40# PLW SP
1A50116910	OK 12.50 045X40# PLW SP
1A50136910	OK 12.50 052X40# PLW SP
1A50099320	OK 12.50 035X550# OMP
1A50109320	OK 12.50 040X550# OMP
1A50119320	OK 12.50 045X550# OMP
1A50139320	OK 12.50 052X550# OMP
1A500994T0	OK 12.50 035X900# OMP
1A50119400	OK 12.50 045X1050# OMP
1A50139400	OK 12.50 052X1050# OMP