



# LOW HYDROGEN COVERED ELECTRODES

## OK 55.00

### Classifications:

SFA/AWS A5.1 E7018-1H4R  
 CSA W48 E4918-1  
 EN ISO 2560-A E 46 5 B 32 H5

### Approvals:

ABS 3H5, 3Y H5  
 BV 3Y H5  
 CE EN 13479  
 CWB CSA W48  
 DB 10.039.03  
 Det Norske Veritas 4 YH5  
 Lloyds 3, 3Y H5  
 RS 3YHH  
 VdTÜV 00632

OK 55.00 is an exceptional, all-position, low hydrogen basic electrode, particularly suitable for critical applications requiring exceptional impacts at low temperatures. This electrode provides a smooth, stable arc with very low spatter. Excellent arc starting is enhanced by a special graphite tip on the electrode. The complete slag coverage provides easy removal and minimal post weld cleanup. OK 55.00 is intended for a wide variety of carbon, low alloy, and hardenable steels. The weld metal is also very resistant to hot cracking. OK 55.00 meets the requirements of 4 mL (average) diffusible hydrogen content in 100 g of deposited weld metal. In addition to standard packaging, OK 55.00 is available in VacPac™ packaging to ensure the lowest possible moisture content and eliminates the need for costly rebaking procedures.



### Typical Mechanical Properties

	As Welded
Yield Strength, psi (MPa)	70,000 (482)
Tensile Strength, psi (MPa)	86,000 (592)
% Elongation in 2" (51 mm)	28
% Reduction in Area	71

### Typical Charpy V-Notch Impact Properties

Testing Temp.	As Welded ft.-lbs. (J)
-4°F (-20°C)	115 (156)
-58°F (-50°C)	86 (117)

### Typical Undiluted Weld Metal Analysis (%)

C	Mn	Si	P	S
0.07	1.40	0.55	<0.015	<0.015



### Suggested Welding Currents:

Diameter, in. (mm)		Length, in. (mm)		Current, A	Arc Volts (approximately)
3/32	(2.5)	14	(350)	80-110	22
1/8	(3.2)	18	(450)	110-140	24
5/32	(4.0)	18	(450)	140-200	24
3/16	(5.0)	18	(450)	200-270	24
1/4	(6.0)	18	(450)	215-360	25

### Deposition Data at 90% of Max. Welding Current:

Diameter, in. (mm)		Length, in. (mm)		Deposition Rate lbs./hr (kg/hr)	Deposition Efficiency (%)	No. electrodes per lb. (Kg) of weld metal	Burn off time per electrode (seconds)
3/32	(2.5)	14	(350)	1.9 (0.86)	64	30 (66)	64
1/8	(3.2)	18	(450)	3.1 (1.4)	69	14 (30)	88
5/32	(4.0)	18	(450)	4.4 (2.0)	70	9 (19)	94
3/16	(5.0)	18	(450)	6.6 (3.0)	72	6 (13)	94
1/4	(6.0)	18	(450)	8.8 (4.0)	72	4 (9)	98

### Preheat:

Preheat is generally not required with OK 55.00 to prevent underbead cracking. However, preheat should be used with hardenable steels to prevent the formation of hard heat-affected zones and eliminate tendencies toward quench cracking on cooling. Preheat may be required when welding heavy sections.

### Standard Partnumbers, Diameters and Packages:

Part Number	Diameter, in. (mm)	Length, in. (mm)	Package	Pallet Weight (Kg)
<i>Tri-Pac (shrink-wrapped cardboard sleeves)</i>				
5500253000	3/32 (2.4)	14 (350)	12.3 Kg Tri-Pac (3 x 4.1 Kg)	811.8
5500323000	1/8 (3.2)	14 (350)	14.1 Kg Tri-Pac (3 x 6.0 Kg)	930.6
5500324000	1/8 (3.2)	18 (450)	18.0 Kg Tri-Pac (3 x 6.0 Kg)	882.0
5500404000	5/32 (4.0)	18 (450)	18.6 Kg Tri-Pac (3 x 6.2 Kg)	911.4
5500504000	3/16 (5.0)	18 (450)	19.5 Kg Tri-Pac (3 x 6.5 Kg)	955.5
5500604000	1/4 (6.0)	18 (450)	19.5 Kg Tri-Pac (3 x 6.5 Kg)	955.5
<i>VacPac™ (vacuum-packed corrugated plastic sleeves)</i>				
55002530G0	3/32 (2.4)	14 (350)	10.2 Kg VacPac (6 x 1.7 Kg)	683.4
55003230G0	1/8 (3.2)	14 (350)	10.8 Kg VacPac (6 x 1.8 Kg)	723.6
55004040V0	5/32 (4.0)	18 (450)	16.4 Kg VacPac (4 x 4.1 Kg)	803.6
55005040V0	3/16 (5.0)	18 (450)	16.8 Kg VacPac (4 x 4.2 Kg)	823.2



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