

LINCORE® 55-G

Metal-to-Metal

KEY FEATURES

- Produces a deposit which resists metal-to-metal wear and mild abrasion
- The deposit results in an even harder material when used with the Bulk Tungsten Carbide process
- To be used on carbon steel and low alloy steel
- Unlimited layers with proper preheat and interpass temperatures and procedures

TYPICAL APPLICATIONS

- Crane wheels
- Blower blades
- Bucket lips
- Dredge parts
- Tillage tools

SHIELDING GAS

75-90% Argon / Balance CO₂
98% Argon / 2% O₂

WELDING POSITIONS

All, except overhead

DIAMETERS / PACKAGING

Diameter in (mm)	10 lb (4.5 kg) Plastic Spool	25 lb (11.3 kg) Plastic Spool	500 lb (227 kg) Accu-Trak® Drum
0.045 (1.1)	ED036444	ED028176	ED031475
1/16 (1.6)		ED028177	ED032661

MECHANICAL PROPERTIES⁽¹⁾

Shielding Gas	Rockwell Hardness (R _c)		
	1 Layer	2 Layer	4 Layers
75%Ar/25%CO ₂	50 - 51	53 - 54	54 - 55
98%Ar/2%O ₂	54 - 55	55 - 56	56 - 57

DEPOSIT COMPOSITION⁽¹⁾

On Carbon Steel (2 Layers)	%C	%Mn	%Si	%Cr	%Mo
0.045 in (1.1 mm) - Ar/CO ₂	0.39	1.24	0.93	5.61	0.55
0.045 in (1.1 mm) - Ar/O ₂	0.47	1.30	1.18	6.44	0.65
1/16 in (1.6 mm) - Ar/CO ₂	0.41	1.24	0.95	5.69	0.57
1/16 in (1.6 mm) - Ar/O ₂	0.45	1.25	1.10	5.81	0.58

TYPICAL OPERATING PROCEDURES

Diameter, Polarity, ESO - in (mm) Shielding Gas	Wire Feed Speed m/min (in/min)	Voltage (Volts)	Approx. Current (Amps)	Deposition Rate kg/hr (lb/hr)
0.045 in (1.1 mm) , DC+, 5/8 (16) 75% Ar/25% CO ₂	5.1 (200)	27	165	2.0 (4.3)
	7.6 (300)	29	225	3.0 (6.7)
	10.2 (400)	31	290	4.2 (9.2)
0.045 in (1.1 mm) , DC+, 3/4 (20) 90% Ar/10% CO ₂	5.1 (200)	25	145	2.1 (4.7)
	7.6 (300)	28	195	3.3 (7.2)
	10.2 (400)	30	245	4.4 (9.7)
0.045 in (1.1 mm) , DC+, 3/4 (20) 98% Ar/2% O ₂	5.1 (200)	25	145	2.3 (5.1)
	7.6 (300)	27	200	3.4 (7.5)
	8.9 (350)	28	225	3.9 (8.7)
	10.2 (400)	29	250	4.4 (9.8)
1/16 in (1.6 mm) , DC+, 5/8 (16) 75% Ar/25% CO ₂	3.8 (150)	28	260	2.6 (5.8)
	6.4 (250)	30	340	4.7 (10.4)
	8.9 (350)	32	420	6.8 (15.1)
1/16 in (1.6 mm) , DC+, 3/4 (20) 90% Ar/10% CO ₂	3.8 (150)	25	230	2.7 (6.0)
	6.4 (250)	27	315	4.9 (10.7)
	8.9 (350)	29	400	7.0 (15.4)
1/16 in (1.6 mm) , DC+, 3/4 (20) 98% Ar/2% O ₂	3.8 (150)	24	220	2.9 (6.4)
	6.4 (250)	26	315	5.0 (11.0)
	8.9 (350)	28	410	7.1 (15.7)

⁽¹⁾ Composition and properties depend upon dilution. Single layer deposit properties depend upon base metal and/or build-up material.

NOTE: Work area should be clean, with any previous hardfacing deposit removed, and cracks properly repaired. Cold parts should be warmed to at least 25°C (75°F). Higher preheat of 150° - 260°C (300° - 500°F) on thick parts or heavy sections.

<p>IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED</p> <p>Fumes from the normal use of some welding products can contain significant quantities of components - such as chromium and manganese - which can lower the 5.0 mg/m³ maximum exposure guideline for general welding fume.</p> <p>BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.</p>

Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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