

LINCORE® 57-G

Abrasion & Impact

KEY FEATURES

- Designed to meet the weldability and mechanical property needs of mining equipment suppliers and rebuilders
- Maintain resistance to check cracking with proper preheat and interpass temperature
- The hard martensitic matrix provides good metal-to-metal wear resistance and moderate impact resistance when tempered
- Can be used with the bulk tungsten carbide process for additional abrasion resistance and exceptional wear life

WELDING POSITIONS

All, except overhead

TYPICAL APPLICATIONS

- Dragline Bucket Lips
- Augers
- Sugar Cane Harvesters
- Tire Shredders
- Tillage Tools

SHIELDING GAS

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

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) | ED037794 | ED037795 | ED037796 |
| 1/16 (1.6) | ED037297 | ED037298 | ED037296 |

MECHANICAL PROPERTIES⁽¹⁾

| Shielding Gas | Rockwell Hardness (R _c) | Mass Loss (G65) (g) |
|--------------------------|-------------------------------------|---------------------|
| 75%Ar/25 CO ₂ | 56-59 | 0.36 |
| 98%Ar/2%O ₂ | 59-61 | 0.36 |

DEPOSIT COMPOSITION⁽¹⁾

| On Carbon Steel (2 Layers) | %C | %Cr | %Nb | %Mn | %Mo | %Si | %V |
|--|---------|----------|---------|---------|---------|---------|---------|
| 1/16 in (1.6 mm) - Ar/CO ₂ | 0.9-1.1 | 7.6-10.0 | 1.3-1.8 | 1.2-1.6 | 0.5-0.6 | 0.8-1.2 | 1.4-1.9 |
| 0.045 (1.1 mm) 98%Ar, 2%O ₂ | 0.971 | 8.65 | – | 1.00 | 0.59 | 1.02 | – |

⁽¹⁾ Based on two layers. Composition and properties depend upon dilution.

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.

TYPICAL OPERATING PROCEDURES

| Diameter, Polarity ESO – in (mm) | Approx. Current (Amps) | Voltage (Volts) | Wire Feed Speed m/min (ipm) | Deposition Rate kg/hr (lb/hr) |
|--|---------------------------|--------------------|--------------------------------|----------------------------------|
| 0.045 in (1.1 mm), DC+, 5/8 (16) 75% Ar/25% CO ₂ | 200 | 27 | 6.4 (250) | 2.4 (5.2) |
| | 260 | 28 | 8.9 (350) | 3.3 (7.2) |
| | 290 | 29 | 11.4 (450) | 4.4 (9.6) |
| 0.045 in (1.1 mm), DC+, 3/4 (20) 90% Ar/10% CO ₂ | 200 | 26 | 6.4 (250) | 2.5 (5.4) |
| | 260 | 27 | 8.9 (350) | 3.4 (7.4) |
| | 300 | 28 | 11.4 (450) | 4.5 (9.8) |
| 0.045 in (1.1 mm), DC+, 3/4 (20) 98% Ar/2% O ₂ | 215 | 24 | 6.4 (250) | 2.6 (5.8) |
| | 270 | 25 | 8.9 (350) | 3.6 (7.9) |
| | 315 | 26 | 11.4 (450) | 4.5 (9.8) |
| 1/16 in (1.6 mm), DC+, 5/8 (16) 75% Ar/25% CO ₂ | 240 | 28 | 3.8 (150) | 2.6 (5.8) |
| | 340 | 30 | 6.4 (250) | 4.7 (10.4) |
| | 420 | 32 | 8.9 (350) | 6.8 (15.1) |
| 1/16 in (1.6 mm), DC+, 3/4 (20) 90% Ar/10% CO ₂ | 230 | 26 | 3.8 (150) | 2.7 (6.0) |
| | 315 | 27 | 6.4 (250) | 4.9 (10.7) |
| | 400 | 29 | 8.9 (350) | 7.0 (15.4) |
| 1/16 in (1.6 mm), DC+, 3/4 (20) 98% Ar/2% O ₂ | 220 | 23 | 3.8 (150) | 2.9 (6.4) |
| | 320 | 26 | 6.4 (250) | 5.0 (11.0) |
| | 415 | 28 | 8.9 (350) | 7.1 (15.7) |

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

FUMES AND GASES can be hazardous to your health.

- Fumes from the normal use of this product contain significant quantities of potentially hazardous compounds. See consumable product label/insert.
- Keep your head out of the fumes.
- Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area.
- An approved respirator should be used unless exposure assessments are below applicable exposure limits.

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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