

# FLEETWELD® 180

Mild Steel, Cellulosic ▪ AWS E6011

## KEY FEATURES

- AC polarity welding
- Performs on low amperages and OCV
- Easy to strike arc

## CONFORMANCES

<b>AWS A5.1/A5.1M:</b>	E6011
<b>ASME SFA-A5.1:</b>	E6011
<b>CWB/CSA W48-06:</b>	E4311

## WELDING POSITIONS

All

## TYPICAL APPLICATIONS

- Small AC welders
- Sheet metal
- Edge, corner and butt joints
- Welding on galvanized and specially coated steels

## DIAMETERS / PACKAGING

Diameter in (mm)	Length in (mm)	1 lb (0.5 kg) Plastic Tube 6 lb (2.7 kg) Master Carton	5 lb (2.3 kg) Plastic Tube 20 lb (9.1 kg) Master Carton*	50 lb (22.7 kg) Easy Open Can
3/32 (2.4)	12 (300)	ED031152, ED033494*	ED033496	ED010110
1/8 (3.2)	14 (350)	ED031722, ED033495*	ED033497	ED010105
5/32 (4.0)	14 (350)			ED010114

\* NOTE: Retail Small Packaging (RSP). All RSP products carry AWS compliance. Unlike the standard products, RSP products have no other agencies approvals.

## MECHANICAL PROPERTIES<sup>(1)</sup> – As Required per AWS A5.1/A5.1M

	Yield Strength <sup>(2)</sup> MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Charpy V-Notch J (ft•lbf) @-29°C (-20°F)
<b>Requirements - AWS E6011</b>	330 (48) min	430 (60) min	22 min	27 (20) min
<b>Typical Results<sup>(3)</sup> - As-Welded</b>	460-490 (67-71)	570-590 (83-86)	22-32	35-72 (26-53)

## DEPOSIT COMPOSITION<sup>(1)</sup> – As Required per AWS A5.1/A5.1M

	%C	%Mn	%Si	%P	%S
<b>Requirements - AWS E6011</b>	0.20 max	1.20 max	1.00 max	Not Specified	Not Specified
<b>Typical Results<sup>(3)</sup> - As-Welded</b>	0.13-0.20	0.44-0.71	0.23-0.45	0.009-0.014	0.005-0.008
	%Ni	%Cr	%Mo	%V	
<b>Requirements - AWS E6011</b>	0.30 max	0.20 max	0.30 max	0.08 max	
<b>Typical Results<sup>(3)</sup> - As-Welded</b>	≤ 0.03	≤ 0.03	≤ 0.01	≤ 0.01	

## TYPICAL OPERATING PROCEDURES

Polarity <sup>(4)</sup>	Current (Amps)		
	3/32 in (2.4 mm)	1/8 in (3.2 mm)	5/32 in (4.0 mm)
AC	40-90	65-120	115-150
DC±	40-80	60-110	105-135

<sup>(1)</sup>Typical all weld metal. <sup>(2)</sup>Measured with 0.2% offset. <sup>(3)</sup>See test results disclaimer <sup>(4)</sup>Preferred polarity is listed first.

*Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at [www.lincolnelectric.com](http://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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Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.com](http://www.lincolnelectric.com) for any updated information.