

# EXCALIBUR® 309/309L-17

Stainless ▪ AWS E309-17, E309L-17

## KEY FEATURES

- Flux coating provides for smooth arc transfer in the flat and horizontal positions
- Q2 Lot® - Certificate showing actual deposit composition and ferrite number (FN) by ferrite scope available online
- Designed with low carbon levels to help eliminate carbide precipitation

## WELDING POSITIONS

- 5/32 in (4.0 mm) and smaller diameter all except Vertical Down
- 3/16 in (4.8 mm) diameter Flat and Horizontal only

## CONFORMANCES

- AWS A5:** E309-17 E309L-17  
**ABS:** E309-17 E309L-17  
**CWB/CSA:** E309-17 E309L-17

## TYPICAL APPLICATIONS

- Designed for joining stainless steel to mild or low alloy steel
- Industrial & General Fabrication

## DIAMETERS / PACKAGING

Diameter in (mm)	Length in (mm)	8 lb (3.6 kg) Easy Open Can	10 lb (4.5 kg) Easy Open Can
3/32 (2.4)	12 (300)	ED033100	
1/8 (3.2)	14 (350)		ED033101
5/32 (4.0)	14 (350)		ED033102
3/16 (4.8)	14 (350)		ED033103

## MECHANICAL PROPERTIES<sup>(1)</sup> – As Required per AWS A5.4

	Yield Strength <sup>(2)</sup> MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Ferrite Number
<b>Requirements</b> AWS E309-17 AWS E309L-17	Not Specified Not Specified	550 (80) min 520 (75) min	30 min 30 min	Not Specified Not Specified
<b>Typical Results<sup>(3)</sup> - As-Welded</b>	455-490 (66-71)	585-620 (85-90)	37-45	7-11

## DEPOSIT COMPOSITION<sup>(1)</sup> – As Required per AWS A5.4

	%C <sup>(4)</sup>	%Cr	%Ni	%Mo	%Mn
<b>Requirements - AWS E309L-17</b>	0.04 max	22.0-25.0	12.0-14.0	0.75 max.	0.5-2.5
<b>Typical Results<sup>(3)</sup></b>	0.02-0.04	23.5-24.0	13.0-13.5	0.05-0.09	0.7-0.9
	%Si	%P	%S	%Cu	
<b>Requirements - AWS E309L-17</b>	1.00 max	0.04 max	0.03 max	0.75 max	
<b>Typical Results<sup>(3)</sup></b>	0.72-0.77	≤0.03	≤0.01	≤0.17	

## TYPICAL OPERATING PROCEDURES

Polarity <sup>(5)</sup>	Current (Amps)			
	3/32 in (2.4 mm)	1/8 in (3.2 mm)	5/32 in (4.0 mm)	3/16 in (4.8 mm)
DC+	40-80	75-110	95-150	130-200
AC	40-80	75-110	95-150	130-200

<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>AWS Requirement for E309-17 is 0.15% max. carbon. <sup>(5)</sup>Preferred polarity is listed first.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED

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/m<sup>3</sup> maximum exposure guideline for general welding fume.

BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.