

# EXCALIBUR® 308/308H-16

Stainless ▪ AWS E308-16, E308H-16

## KEY FEATURES

- Flux coating provides smooth transfer for all position except vertical down
- Higher carbon content improves strength in higher temperature applications
- Q2 Lot® - Certificate showing actual deposit composition and ferrite number (FN) by ferrite scope available online

## WELDING POSITIONS

All, except vertical down

## CONFORMANCES

<b>AWS A5:</b>	E308-16, E308H-16
<b>ABS:</b>	E308-16, E308H-16
<b>CWB/CSA:</b>	E308-16, E308H-16

## TYPICAL APPLICATIONS

- 304 and 304H stainless steels
- ASTM A743 or A744 Types CF-8 and CF-10
- Common austenitic stainless steels referred to as "18-8" steels

## 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)	ED033083	
1/8 (3.2)	14 (350)		ED033084
5/32 (4.0)	14 (350)		ED033085
3/16 (4.8)	14 (350)		ED033086

## 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 E308-16 AWS E308H-16	Not Specified Not Specified	550 (80) min 550 (80) min	35 min 35 min	Not Specified Not Specified
<b>TTypical Results<sup>(3)</sup> – As-Welded</b>	435-545 (63-79)	595-640 (86-93)	41-48	4-6

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

	%C <sup>(4)</sup>	%Cr	%Ni	%Mo	%Mn
<b>Requirements – AWS E308H-16</b>	0.04 - 0.08 <sup>(4)</sup>	18.0 - 21.0	9.0 - 11.0	0.75 max.	0.5 - 2.5
<b>Typical Results<sup>(3)</sup></b>	0.05 - 0.06	19.7 - 20.3	9.9 - 10.1	0.03 - 0.07	0.7 - 0.8
	%Si	%P	%S	%Cu	
<b>Requirements – AWS E308H-16</b>	1.00 max	0.04 max	0.03 max	0.75 max	
<b>Typical Results<sup>(3)</sup></b>	0.30 - 0.40	≤0.03	≤0.02	≤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 - 70	60 - 100	90 - 140	120 - 185
AC	40 - 70	60 - 100	90 - 140	120 - 185

<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 E308-16 is 0.08% 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.