

# Pipelin<sup>®</sup> 19P

AWS E10018-G H4R • Low Alloy, Low Hydrogen, Pipe

## Typical Applications

- ▶ Fill and cap pass welding of up to X80 grade pipe

## Conformances

AWS A5.5/A5.5M: 2006      E10018-G H4R  
ASME SFA-A5.5:              E10018-G H4R

## Welding Positions

All, except vertical down

## Key Features

- ▶ Low hydrogen, vertical up capability on X80 grade pipe
- ▶ Charpy V-Notch impact toughness tested to -46°C (-50°F)
- ▶ Q2 Lot<sup>®</sup> - Certificate showing actual deposit chemistry available online

## DIAMETERS / PACKAGING

Diameter mm (in)	Length in (mm)	10 lb (4.5 kg) Easy Open Can 30 lb (13.6 kg) Master Carton
3.2 (1/8)	14 (350)	ED032622
4.0 (5/32)	14 (350)	ED032623

## MECHANICAL PROPERTIES<sup>(1)</sup> – As Required per AWS A5.5/A5.5M: 2006

	Yield Strength <sup>(2)</sup> MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Charpy V-Notch J (ft•lbf)	
				@ -29°C (-20°F)	@ -46°C (-50°F)
Requirements - AWS E10018-G H4R	600 (87) min.	690 (100) min.	15 min.	Not Specified	Not Specified
Typical Results <sup>(3)</sup> - As-Welded	660-740 (96-107)	740-825 (107-120)	20-26	91-129 (69-95)	81-111 (60-82)

## DEPOSIT COMPOSITION<sup>(1)</sup> – As Required per AWS A5.5/A5.5M: 2006

	%C	%Mn	%Si	%P	%S	%Ni <sup>(4)</sup>
Requirements - AWS E10018-G H4R	Not Specified	1.00 min.	0.80 min.	0.03 max.	0.03 max.	0.50 min.
Typical Results <sup>(3)</sup> - As-Welded	0.03-0.05	1.44-1.78	0.34-0.57	0.01-0.02	≤ 0.01	1.92-2.36
	%Cr <sup>(4)</sup>	%Mo <sup>(4)</sup>	%V <sup>(4)</sup>	%Cu <sup>(4)</sup>	Diffusible Hydrogen (mL/100g weld deposit)	
Requirements - AWS E10018-G H4R	0.30 min.	0.20 min.	0.10 min.	0.20 min.	4.0 max.	
Typical Results <sup>(3)</sup> - As-Welded	0.02-0.07	0.37-0.47	0.01-0.02	0.01-0.07	2-3	

## TYPICAL OPERATING PROCEDURES

Polarity <sup>(5)</sup>	Current (Amps)	
	3.2 mm (1/8 in)	4.0 mm (5/32 in)
DC+	80-155	130-210
AC	80-160	140-215

<sup>(1)</sup>Typical all weld metal. <sup>(2)</sup>Measured with 0.2% offset. <sup>(3)</sup>See test results disclaimer below. <sup>(4)</sup>In order to meet the alloy requirements of the "G" group, the undiluted weld metal shall have the minimum of at least one of the elements listed.  
<sup>(5)</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

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