

1/8" Pipeliner® 80R Sulfide Stress Cracking (SCC) Testing

TEST RESULTS PROVIDED FOR INFORMATION ONLY

This document is to state that the Lincoln Electric 1/8" Pipeliner® 80R was used to produce the results summarized in the tables below, when tested under the conditions reported under NACE TM0177- Method A.

Typical Weld Metal Composition

Element	Weld Metal [wt. %]
C	0.20
Mn	0.66
Si	0.22
P	0.01
S	0.01
Cr	0.02
Ni	0.02
Mo	0.13
V	0.00

Test Specimen:

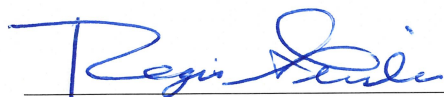
Type	Standard
Orientation	Longitudinal/All Weld
Finishing Process	Ground
Loading Method	Proof Ring

Test Environment: NACE TM0177 Solution A, pH = 2.7, 99.5% H₂S

Applied Stress psi (MPa)	Temperature °F (°C)	Test period (hours)	Initial pH	Final pH	Result
54,000 (372)	75 (24)	720	2.61	3.29	Pass – no sulfide stress cracks
57,600 (398)	75 (24)	720	2.61	3.29	Pass – no sulfide stress cracks
62,640 (432)	75 (24)	720	2.61	3.29	Pass – no sulfide stress cracks

NOTES:

Test assembly fabricated in accordance with the American Welding Society A5.1



Regis Geisler
Consumable Compliance Manager

1/8" Pipeliner® 80R, 4.0mm Pipeliner® 8P+ and 4.0mm Pipeliner® LH-D90 Hydrogen Induced Cracking (HIC) Testing

TEST RESULTS PROVIDED FOR INFORMATION ONLY

This document is to state that the Lincoln Electric 1/8" Pipeliner® 80R (root), Lincoln Electric 4.0mm Pipeliner® 8P+ (hot), and 4.0mm Pipeliner® LH-D90 (Fill & Cap) were used to produce the results summarized in the tables below, when tested under the conditions reported under NACE TM0284-2016 Solution A.

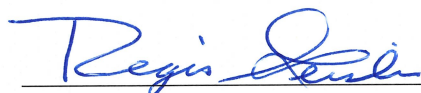
Weld Metal Composition

Element	Weld Metal [wt. %]
C	0.07
Mn	1.19
Si	0.52
P	0.01
S	0.01
Cr	0.04
Ni	0.80
Mo	0.21
V	0.01

Specimen Results

Exposure Time – 96 Hours		
Crack Length Ratio CRL [%]	Crack Thickness Ratio CTR [%]	Crack Sensitivity Ratio CSR [%]
0.0	0.0	0.0

Additional details are available upon request.



Regis Geisler
Consumable Compliance Manager

5/32" Pipeliner® 80R Sulfide Stress Cracking (SCC) Testing

TEST RESULTS PROVIDED FOR INFORMATION ONLY

This document is to state that the Lincoln Electric 5/32" Pipeliner® 80R was used to produce the results summarized in the tables below, when tested under the conditions reported under NACE TM0177- Method A.

Typical Weld Metal Composition

Element	Weld Metal [wt. %]
C	0.12
Mn	0.75
Si	0.16
P	0.00
S	0.01
Cr	0.02
Ni	0.01
Mo	0.17
V	0.01

Test Specimen:

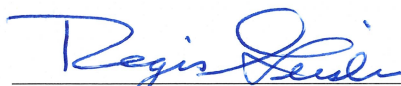
Type	Standard
Orientation	Longitudinal/All Weld
Finishing Process	Ground
Loading Method	Proof Ring

Test Environment: NACE TM0177 Solution A, pH = 2.7, 99.5% H₂S

Applied Stress psi (MPa)	Temperature °F (°C)	Test period (hours)	Initial pH	Final pH	Result
54,000 (372)	75 (24)	720	2.61	3.29	Pass – no sulfide stress cracks
57,600 (398)	75 (24)	720	2.61	3.29	Pass – no sulfide stress cracks
62,640 (432)	75 (24)	720	2.61	3.29	Pass – no sulfide stress cracks

NOTES:

Test assembly fabricated in accordance with the American Welding Society A5.1



Regis Geisler
Consumable Compliance Manager

5/32" Pipeliner® 80R, 4.0mm Pipeliner® 8P+ and 4.0mm Pipeliner® LH-D90 Hydrogen Induced Cracking (HIC) Testing

TEST RESULTS PROVIDED FOR INFORMATION ONLY

This document is to state that the Lincoln Electric 5/32" Pipeliner® 80R (root), Lincoln Electric 4.0mm Pipeliner® 8P+ (hot), and 4.0mm Pipeliner® LH-D90 (Fill & Cap) were used to produce the results summarized in the tables below, when tested under the conditions reported under NACE TM0284-2016 Solution A.

Weld Metal Composition

Element	Weld Metal [wt. %]
C	0.06
Mn	1.16
Si	0.56
P	0.01
S	< 0.01
Cr	0.04
Ni	0.86
Mo	0.22
V	0.01

Specimen Results

Exposure Time – 96 Hours		
Crack Length Ratio CRL [%]	Crack Thickness Ratio CTR [%]	Crack Sensitivity Ratio CSR [%]
0.0	0.0	0.0

Additional details are available upon request.



Regis Geisler
Consumable Compliance Manager