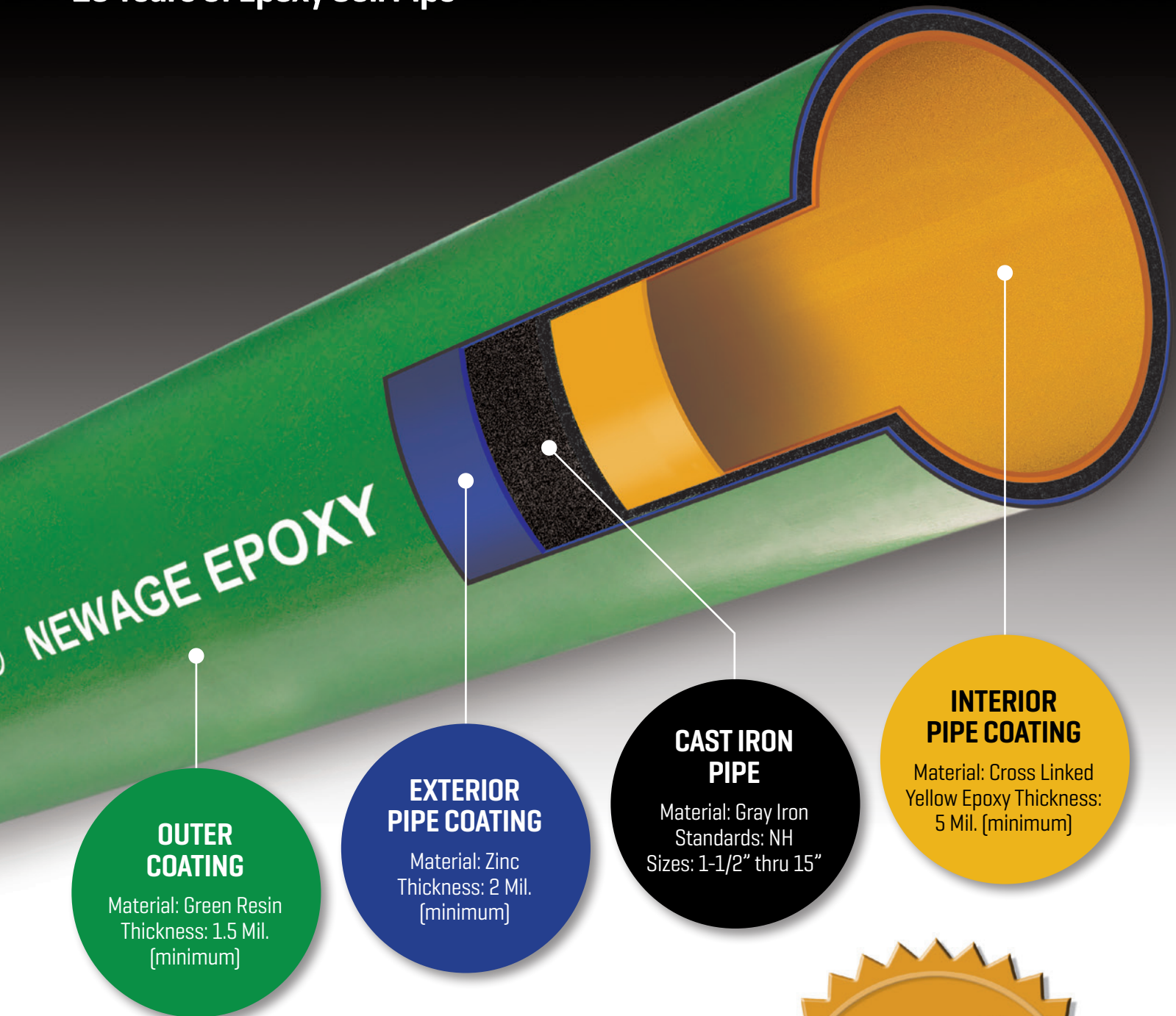




**There Is No Equal.**

**Pipe Coating Comparison**

**10 Years of Epoxy Soil Pipe**



**OUTER COATING**

Material: Green Resin  
Thickness: 1.5 Mil.  
[minimum]

**EXTERIOR PIPE COATING**

Material: Zinc  
Thickness: 2 Mil.  
[minimum]

**CAST IRON PIPE**

Material: Gray Iron  
Standards: NH  
Sizes: 1-1/2" thru 15"

**INTERIOR PIPE COATING**

Material: Cross Linked  
Yellow Epoxy Thickness:  
5 Mil. [minimum]

**Welcome to the NewAge**

Email: [info@NewAgeCasting.com](mailto:info@NewAgeCasting.com)  
Toll Free: 1.866.791.7055  
[www.NewAgeCasting.com](http://www.NewAgeCasting.com)

**Backed By  
Our 10-Year  
Warranty**

# COATINGS COMPARISON STUDY

## COMPETITOR TECHNICAL ISSUES

As you can see from the below excerpt of our competitor's literature, they do not publish or include any technical information on cross-cut adhesion, temperature cycling, or dry coating thickness tests.

### COMPETITOR EPOXY SPECIFICATION

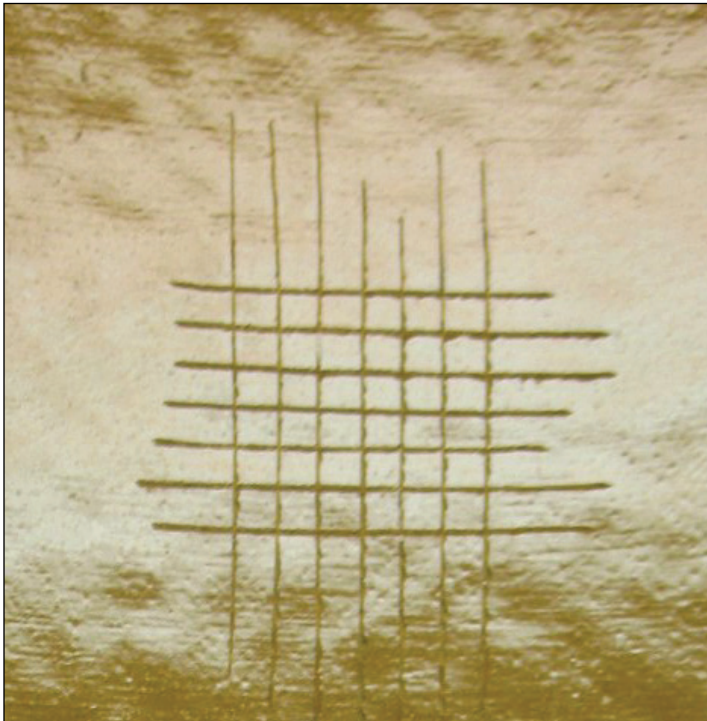
- I. Coating Performance: Pipe and Fitting Coatings must pass the following performance specifications per EN 877:
- a. 350 hours of salt spray testing
  - b. Resistance to wastewater for 30 days at 73° F
  - c. Chemical resistance from pH 2 to pH 12 for 30 days at 73° F
  - d. Resistance to hot water for 24 hours at 203° F

### FACTS

1. The zinc has zero effect on corrosion resistance of the interior of the pipe.
2. EN 877 has seven tests. Our competitors list only four tests because they do not meet the other three.
3. The three omitted tests are Cross-Cut Adhesion, Temperature Cycling, and Dry Coating Thickness tests.
4. Without testing and passing these critical tests, the competitor's epoxy coating will blister, flake, delaminate and fail at an accelerated rate.

## CROSS-CUT ADHESION TESTING PER EN 877

Third party testing (below) shows their product cannot pass - therefore, they do not publish.



#### NEWAGE CASTING

CROSS-CUT TEST

PASSED

#### COMPETITOR

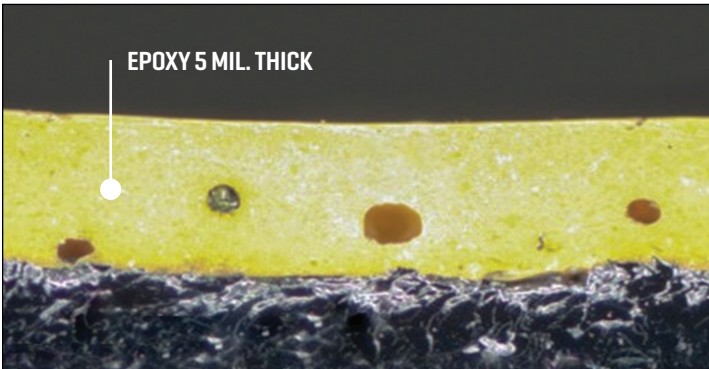
CROSS-CUT TEST

FAILED

To conduct this test, make 3" blade cuts into the epoxy. Seven cuts are longitudinal and seven cuts are circumferential. Each cut is 1/16" apart and no more 5% coating detachment is accepted. The left photo shows NewAge passing the cross-cut test. The photo on the right shows our competitor failing the cross-cut test with over 20% delamination.



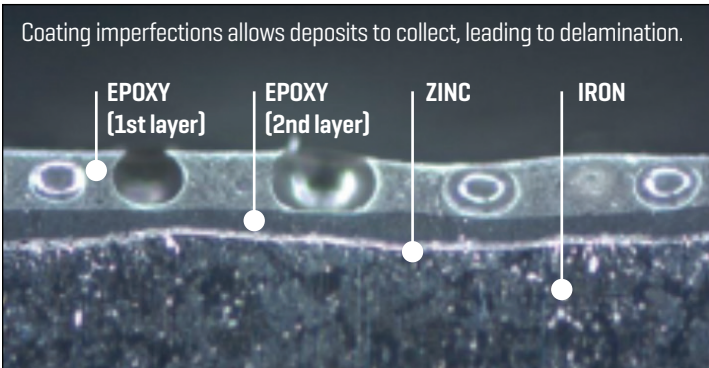
## MICROGRAPH COMPARISON: INTERIOR COATING



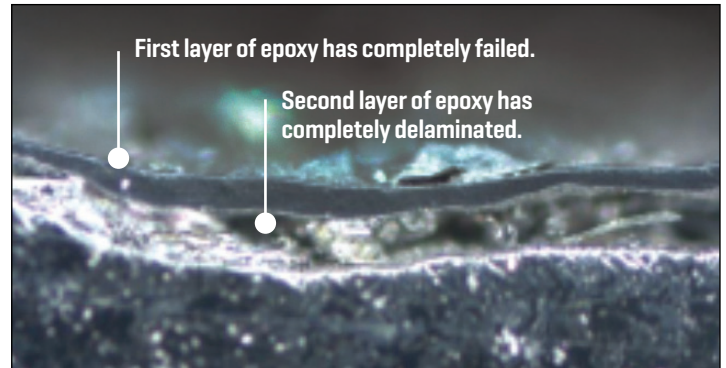
**Before Temperature Cycling Test:** NewAge's epoxy coating is intact prior to testing, contains a thicker resilient coating with very few inconsistencies in the finish.



**After Temperature Cycling Test:** NewAge's epoxy coating remains intact with minimal evidence of wear, which promotes performance longevity and extended service.

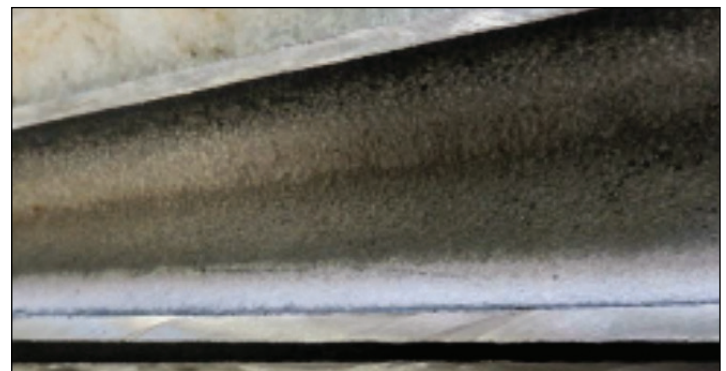
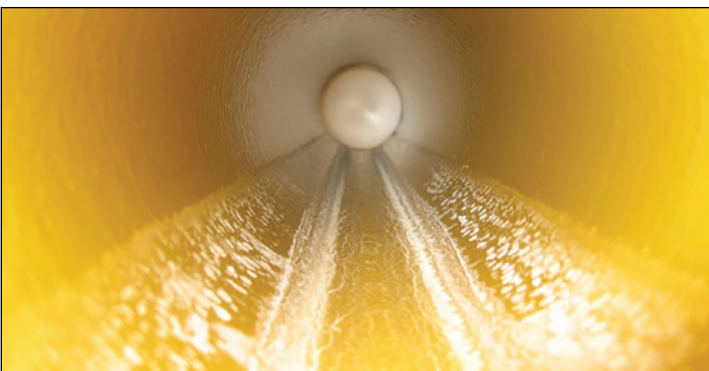


**Before Temperature Cycling Test:** Competitor's coating is intact prior to testing, but contains extreme inconsistencies in the finish.



**After Temperature Cycling Test:** Competitor's coating will quickly delaminate from pipe, which promotes and accelerates premature pipe failure.

## TEMPERATURE CYCLE TESTING PER EN 877



### NEWAGE CASTING

**INTERIOR COATING CHARACTERISTICS**

Consistent  
Quality Finish  
Resilient

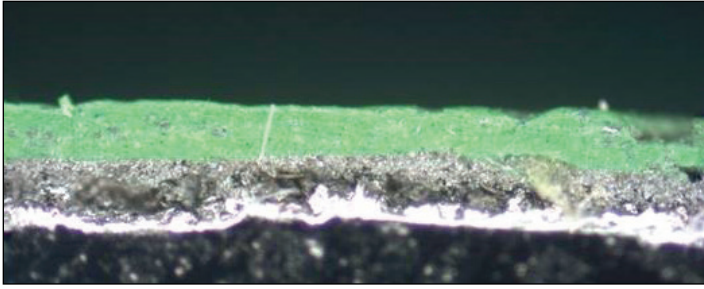
### COMPETITOR

**INTERIOR COATING CHARACTERISTICS**

Inconsistent  
Defective Finish  
Failure Prone

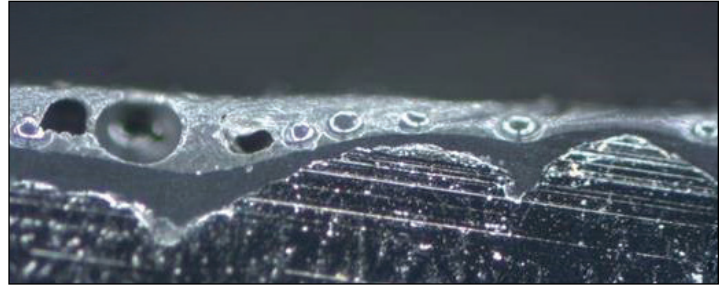
# MICROGRAPH COMPARISON: EXTERIOR COATING

## NEWAGE CASTING



Grinded for a smooth clean surface prior to applying the coatings, resulting in an even surface with a clean profile for the epoxy to adhere to.

## COMPETITOR



Extremely uneven exterior surface of the iron resulting in an inconsistent thickness of paint. If the surface has not been properly cleaned then the paint has no profile, which leads to increased chances of delamination.

# PERFORMANCE CHARACTERISTIC COMPARISON

PERFORMANCE CHARACTERISTIC	NEWAGE EPOXY COATED CAST IRON SOIL PIPE	COMPETITOR ATTEMPT AT EPOXY COATED CAST IRON SOIL PIPE
Third party certified to ASTM A 74, ASTM A 888 and CISPI 301, Including Annex A1	✓	✓
Third party certified to the complete coating performance tests of EN 877	✓	✓
Salt spray test for 350 hours	✓	✓
Resistance to wastewater test for 30 days	✓	✓
Resistance to hot water at 203° F for 24 hours	✓	✓
Chemical resistance from 2-12pH	✓	✓
Salt spray test for 1,500 hours*	✓	✗
Resistance to steam at 250° F for 24 hours*	✓	✗
Chemical resistance to over 200 tested aggressive fluids*	✓	✗
Cross-cut adhesion test	✓	✗
Temperature cycling test for 100 hours from 40-203° F	✓	✗
Dry coating thickness test per ISO 2808, Method 6	✓	✗
10-year warranty	✓	✗
Over \$20,000,000 of epoxy coated pipe installed throughout the USA	✓	✗
Over 10-years of design, application, manufacturing and installed product experience	✓	✗

\*These tests are significantly beyond the EN 877 parameters



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