

# NELSON TESTING LABORATORIES

## *Construction Materials*

1210 REMINGTON ROAD  
SCHAUMBURG, ILLINOIS 60173 USA  
Phone (847) 882-1146 Fax (847) 882-1148

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[www.nelsontesting.com](http://www.nelsontesting.com)

June 5, 2012

### REPORT OF TESTS

SUBJECT: **Physical Analysis of Epoxy Primer**

PROJECT: **Enviro-Grip EP 404FC Epoxy Primer 2HR**

TEST METHODS: ASTM D 1308, "Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes".

ASTM D 7234, "Standard Test Method for Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers"

ASTM E 96, "Test Methods for Water Vapor Transmission of Materials"

MATERIALS: Delivered NTL on February 10, 2012

NTL PROJECT #: 1045-12

PAGE: 1 of 3

### TEST RESULTS

#### ASTM D 1308 – Spot Test

Cast Date:	March 14, 2012
Application Thickness:	16 mils
Cure Time:	21 days
Test Start Date:	April 4, 2012
Type of Reagent:	10% sodium hydroxide solution
Method:	Spot Test, Open (section 7.3)
Specimens:	Three
Test Duration:	28 days

#### Results:

**PASS – No objectionable alteration in the surfaces, no discoloration, no change in gloss, no blistering, no softening, no swelling and no loss of adhesion.**

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NTL Project #1045-12  
Page 2 of 3

### TEST RESULTS (continued)

#### ASTM D 7234 – Adhesion Test

Cast Date: March 14, 2012  
Application Thickness: 16 mils  
Cure Time: 21 days  
Test Start Date: April 4, 2012  
Specimens: Three  
Substrate: Concrete (5,500 psi @ 28 days)  
Loading Fixture: 50 mm

#### Results:

##### *Average of Three Readings*

Adhesion Strength > **510 psi**

*\*Failure Types – All Concrete Base*

#### ASTM E 96 – Water Vapor Transmission

Substrate: Concrete (5,500 psi @ 28 days) - 8" x 6" x 0.75"  
Coating Date: April 13, 2012  
Application Thickness: 16 mils wet  
Cure Time: 21 days  
Test Start Date: May 4, 2012  
Method: Procedure B - Water Method (73.4° F. and 50% RH)  
Specimens: Six total – Three control and three EP 404FC  
Test Duration: 21 days

#### Results:

##### *Average of Three Readings*

##### **Control**

Water Vapor Transmission **0.84 grams/h-m<sup>2</sup>**  
Water Vapor Transmission **4.13 lbs/1000 ft<sup>2</sup>/24 hrs**  
Permeance (perms) **2.91 grains/h-ft<sup>2</sup>-in Hg.**

##### **EP 404 FC 2-Hr**

Water Vapor Transmission **0.02 grams/h-m<sup>2</sup>**  
Water Vapor Transmission **0.11 lbs/1000 ft<sup>2</sup>/24 hrs**  
Permeance (perms) **0.08 grains/h-ft<sup>2</sup>-in Hg.**

##### **Comparison**

Decrease in Water Vapor Transmission **0.82 grams/h-m<sup>2</sup>**  
Decrease in Water Vapor Transmission **4.02 lbs/1000 ft<sup>2</sup>/24 hrs**  
Decrease in Permeance (perms) **2.83 grains/h-ft<sup>2</sup>-in Hg.**

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NTL Project #1045-12  
Page 3 of 3

Respectfully submitted,

NELSON TESTING LABORATORIES

A handwritten signature in black ink, appearing to read 'Mark R. Nelson', is positioned below the company name.

Mark R. Nelson  
President