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**EVALUATION OF “EVO Stone” COATING SYSTEM FOR THERMAL CYCLING  
IN ACCORDANCE WITH ASTM D6944 - 09, Method A**


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A Report to:	Carter Fabricating Inc. 326 Deerhurst Drive, Brampton, ON L6T 5H9
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Proposal No.:	15-006-349178, Revision 2
Report No.:	15-06-P0067-D 4 pages
Date:	June 2, 2015

## 1.0 INTRODUCTION

At the request of *Carter fabricating Inc.*, Exova was retained to evaluate "EVO Stone" coating system for thermal cycling resistance in accordance with ASTM D6944-09, Method A.

All samples received were shipped to Exova facility in Mississauga, ON for testing. Upon receipt, the samples were assigned the following Exova Sample Number:

Client Sample Description	Exova Sample No.
<p>EVO STONE COATING - Stucco Coating (6" x 6" – 4 pieces &amp; 12" x 12" – 3 pieces)</p> 	15-06-P0067

## 2.0 PROCEDURE

Testing was performed and evaluated in accordance with the ASTM test methods described below:

Test Description	Test Method
Standard Practice for Resistance of Cured Coatings to Thermal Cycling	ASTM D6944-09, Method A
Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments	ASTM D1654-08

Specimen Dimensions	150 mm x 150 mm x 6 mm (nominal)
No. of Specimens	3
Thermal Cycling	30 cycles (each cycle consists of 50°C for 4 hours, 4 hours water immersion and 16 hours at -29°C)
Air pressure	80 Psi
Water temperature	45°C
Nozzle angle	45°
Measurement Equipment	Thermocouple MII# B10864 Water tank, Freezer and Air circulating oven
Test Start Date	2015-04-15
Test End Date	2015-05-26

### 3.0 RESULTS

A summary of results is presented in Table 1. In all cases, SI units are the primary units of measure.

Table 1 – Thermal Cycling Result Summary <i>Exova Sample No.: 15-06-P0067</i>		
Physical Property	Requirement	Result /Comment
<b>Thermal Cycling</b> - 3 panels 30 cycles (each cycle consists of 50°C for 4 hours, 4 hours water immersion and 16 hours at -29°C)	Visual Observation of the panels before and after exposure and one panel scribed for corrosion creepback as per ASTM D1654	<ul style="list-style-type: none"><li>• No blistering, lifting or other visible changes.</li><li>• No loss of adhesion /creepback from the scribe</li></ul>



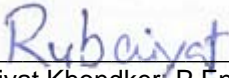
**Photo 1:** Panels after exposure to Thermal Cycling

Observation: No blistering, lifting or other visible changes.  
No loss of adhesion /creepback from the scribe

#### 4.0 CONCLUSION

The samples submitted by Carter Fabricating Inc., identified as "EVO Stone Coating System" has been tested for thermal cycling resistance in accordance with ASTM D6944-09, Method A, as described in this report. No visible physical damage or changes in appearance were found at the end of the exposure period.

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