

October 24, 2014 Via Email: *chris@intcoatings.com* 

Mr. Chris Collins CEO International Coatings Group, Inc. 757 SE 17<sup>th</sup> Street Fort Lauderdale, FL 33316-2960

## SUBJECT: Results of Tensile Adhesion Strength Determination; <u>KTA-Tator, Inc. Project No. 340763-5</u>

Dear Mr. Collins:

In accordance with KTA-Tator, Inc. (KTA) Proposal PN144851, the subsequent signed Authorization to Proceed dated September 17, 2014, and email authorization dated October 23, 2014, KTA has completed tensile adhesion strength determination for the submitted sample. This report contains a description of the testing procedure employed and the results of the testing.

## **SAMPLES**

One coated panel measuring 4" x 8", coated white on one surface and red on the opposite surface was received from International Coatings Group, Inc. (ICG) on September 19, 2014, and designated as Sample KTA-3. It should be noted that at no time did KTA personnel witness the acquisition or preparation of the sample.

## **TENSILE ADHESION STRENGTH**

Tensile adhesion (pull-off strength) of Sample KTA-3 was measured in accordance with ASTM D4541-09e1, "Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers," Annex A5, "Self-Aligning Adhesion Tester Type V." The testing surfaces were wiped clean and abraded gently using fine sandpaper. 20mm loading fixtures with an abraded test surface were attached to the coating using a two component epoxy adhesive (Araldite 2011), which was allowed to cure for 24 hours at ambient laboratory conditions (70  $\pm$  2°F and 50  $\pm$  5% relative humidity). The loading fixtures were then detached using a self-aligning Positest ATA hydraulic adhesion tester. The force (in psi) required to remove each loading fixture was recorded along with the location of break and approximate percentage of each. The results of the testing are provided in the table below, "Tensile Adhesion Results." The location of break is defined as follows:

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115 Technology Drive Pittsburgh, PA 15275

- Adhesive Failure: A split between layers or a split between the substrate and the first layer.
- Cohesive Failure: A split within a single layer.
- Glue Failure: Coating strength exceeds glue strength.

Sample ID	Replicate ID	Location of Break	Coating Pull-Off Strength (psi)	Average Coating Pull-Off Strength (psi)
KTA-3	А	100% Adhesive Between White and Red Layers	347	400
	В	100% Adhesive Between White and Red Layers	365	
	С	100% Adhesive Between White and Red Layers	487	

## **Tensile Adhesion Results**

If you have any questions concerning the testing or this report, please contact me by telephone at 412.788.1300 extension 185, or by email at nkelly@kta.com.

Sincerely,

**KTA-TATOR, INC.** Vicholas J. Kelly

Nicholas J. Kelly Chemical Technician

NJK/MAS:kdw JN340763-5 CIN: 308084

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