



June 17, 2019

Via Email: [mmcgough@ncspa.org](mailto:mmcgough@ncspa.org)

Mr. Michael McGough, P.E.  
Director of Technical Services  
National Corrugated Steel Pipe Association  
14070 Proton Road, Suite 100  
Dallas, TX 75244-3601

**SUBJECT: Results of Immersion Testing; KTA-Tator, Inc. Project No. 390243-A1**

Dear Mr. McGough:

In accordance with KTA-Tator, Inc. (KTA) Proposal Number PN199996 and the subsequent signed Authorization to Proceed dated April 3, 2019, KTA has completed 48-hour spot testing on the additional samples. This report contains descriptions of the testing procedures employed and the results of the testing.

## SAMPLES

The samples listed in Table 1, "Samples" were received from Elzly Technology Corporation on June 11, 2019. It should be noted that at no time did KTA personnel witness the acquisition of the samples listed below.

**Table 1 – Samples**

KTA ID	Description	Label
KTA-12	One coated steel panel measuring 4" x 6" with top right corner missing	REF
KTA-13	One coated steel panel measuring 6" x 9"	1.7
KTA-14	One coated steel panel measuring 6" x 9" with coating at bottom right corner removed	2.8



### CHEMICAL SPOT TESTING

Chemical spot testing was conducted in accordance with ASTM D1308-02(13), "Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes." The spot test was conducted using a 10% sodium hydroxide solution. After 48 hours the panel was rinsed with water and gently patted dry with a paper towel. The specimen was allowed to recover for one hour, and then the surface was examined with the unaided eye for evidence of blistering, softening, or loss of adhesion. Observations are reported in Table 2, "Observations After Spot Testing." Pre and post photographs of the test panels are appended.

Table 2 – Observations After Spot Testing

Panel ID	Observations
KTA-12	No blistering, softening, wrinkling, or loss of adhesion
KTA-13	No blistering, softening, wrinkling, or loss of adhesion
KTA-14	No blistering, softening, wrinkling, or loss of adhesion

If you have any questions concerning the testing or this report, please contact me by telephone at 412.788.1300 extension 230, or by email at mswogger@kta.com.

Sincerely,

**KTA-TATOR, INC.**

Melissa A. Swogger

*Project Manager/Chemical Technician*

Appendix: Photographs

cc: Mr. Pete Ault <pault@elzly.com>

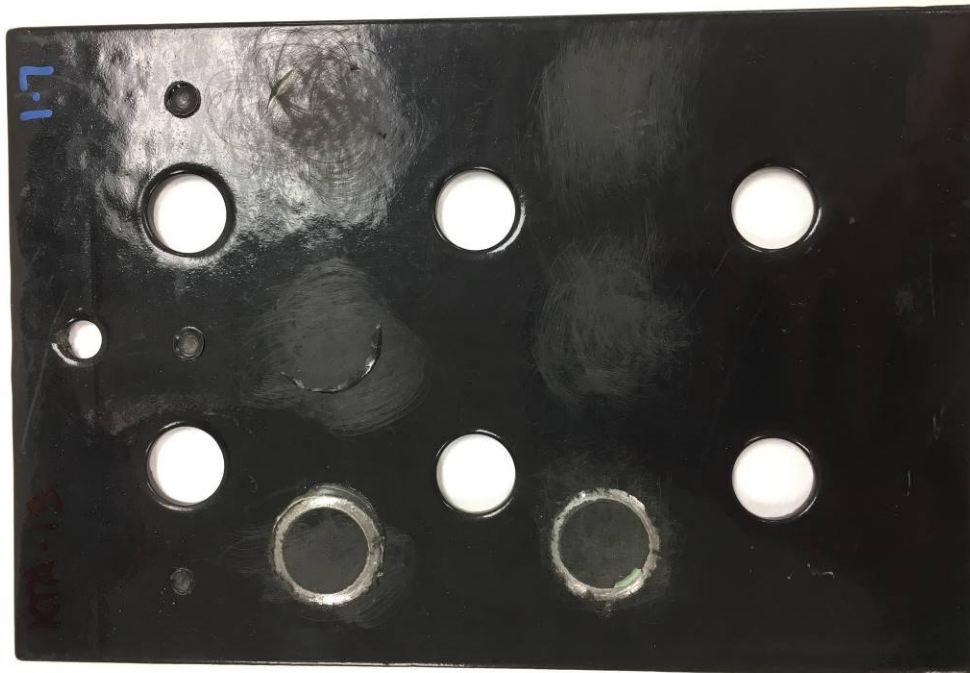
MAS/VDS:pm

**NOTICE:** This report represents the opinion of KTA-TATOR, INC. This report is issued in conformance with generally accepted industry practices. While customary precautions were taken to verify the information gathered and presented is accurate, complete and technically correct, this report is based on the information, data, time, materials, and/or samples afforded. This report should not be reproduced except in full.

PHOTOGRAPHIC APPENDIX



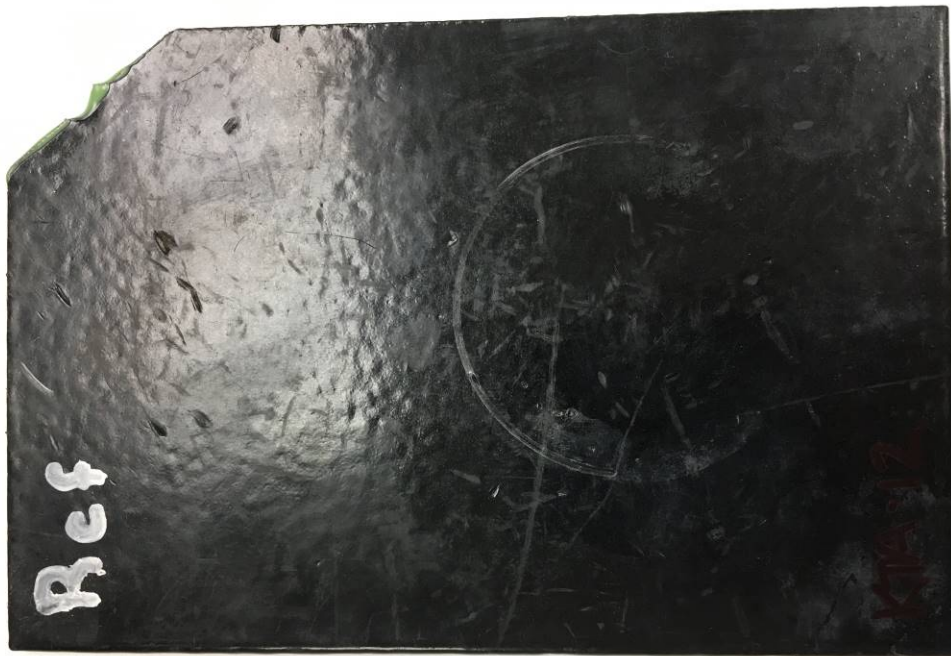
KTA-12, Pre-Spot Testing to 10% NaOH



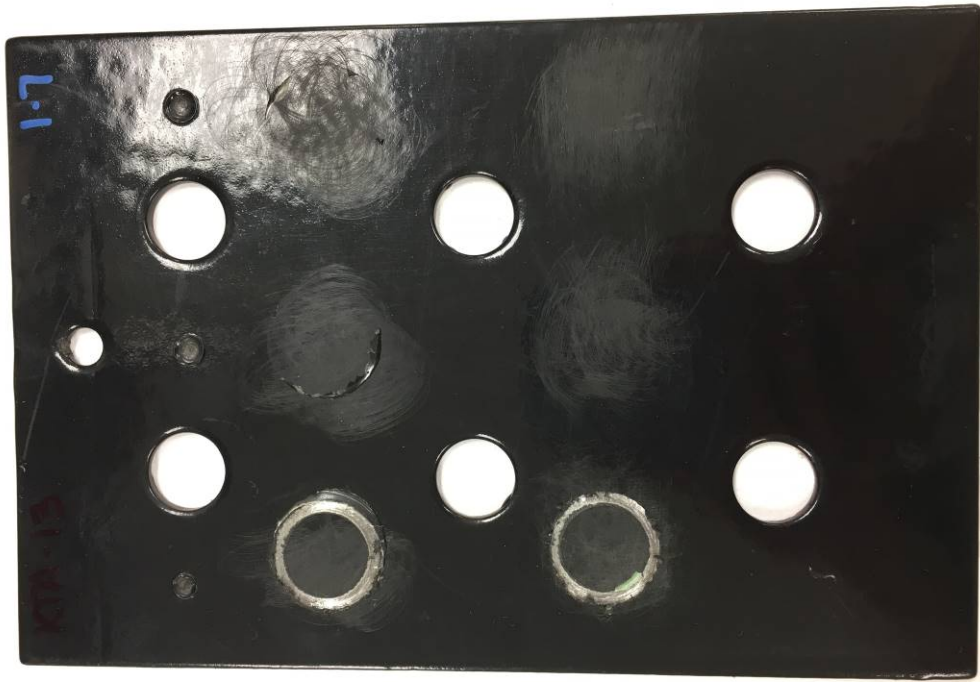
KTA-13, Pre-Spot Testing to 10% NaOH



**KTA-14, Pre-Spot Testing to 10% NaOH**



**KTA-12, Post-Spot Testing to 10% NaOH**



**KTA-13, Post-Spot Testing to 10% NaOH**



**KTA-14, Post-Spot Testing to 10% NaOH**