

LOAD TESTING OF Summit[™] railing by NDT [Non•Destructive Testing Group]

Gilpin Products, LLC is the current manufacturer of the railing tested. Attached are the NDT reported results. The tests described indicate these tests were performed under contract with Kingsford Products, Inc. In October 2005 Gilpin, Inc purchased the assets of Kingsford Products; subsequently Gilpin Products, LLC purchased the assets of Gilpin, Inc. in August 2018.

The Summit[™] rail being currently produced use the same process and materials as those reported in the attached documents.

EASTERN REGIONAL OFFICE

100 Industrial Boulevard, Aliquippa, PA 15001 Phone: (724) 378-3900 Fax: (724) 378-3940 Web: www.nondestructivetesting.com Email: ndtgpa@ndtg.net



Load Testing of Hand Rail

Tested For: Kingsford Products Inc. 310 Baltimore-Somerset Road P.O Box 75 Baltimore, OH 43105 Date: April 17, 2003

PO: PAF Lab No: 030344 Date Received: 4/15/03 Date Tested: 4/15/03

Work Order: G1623 Rev 1

On April, 17, 2003, a representative of NDT Group Physical Testing Department, Mr. Pete Merther, was at the Kingsord Products Baltimore, OH facility to conduct load testing of hand rail products identified as below in accordance with BOCA Section 1067.7.1

The testing was witnessed by Mr. Roland Harrison and Mr. Jim Barber of Kingsford Products.

The following tests were performed using a come-along and a calibrated load cell on the railing assembly. The railing was assembled using Kingsford Products Installation Instructions in a concrete floor.

- 9. 200 pound concentrated load at center in the vertical down direction
- 10. 50 pound / foot uniform load in the vertical down direction
- 11. 200 pound concentrated load at center in horizontal direction
- 12. 50 pound / foot uniform load in the horizontal direction

Sample ID: 6' Summit 4" spacing w/ fixed wall attachments both sides 36" installed height Secured in concrete with 4-1/4" wedge anchors on each post 1" embedment

Load Case

- 1. 200 pound concentrated load at center in the vertical down direction
- 2. 50 pound / foot uniform load in the vertical down direction (300 pounds)
- 3. 200 pound concentrated load at center in horizontal direction
- 4 50 pound / foot uniform load in the horizontal direction (300 Pounds)

<u>Comments</u> No Visible Damage

No Visible Damage

No Visible Damage

No Visible Damage

Meets Requirements of BOCA

Respectfully Submitted,

Peter Merther, PE

NDTG Mechanical

Testing was performed in accordance with accepted industry practice as well as the test methods referenced. NDTG has no direct knowledge of the origin, sampling procedure, nor condition of the samples, and makes no claims as to the suitability nor final use of the material. This test report applies only to those items tested. This report shall not be reproduced except in full without the written consent of NDTG.

Page 1 of 1

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The testing was witnessed by Mr. Roland Harrison and Mr. Jim Barber of Kingsford Products.

The following tests were performed using a come-along and a calibrated load cell on the railing assembly. The railing was assembled using Kingsford Products Installation Instructions in a concrete floor.

- 13. 200 pound concentrated load at center in the vertical down direction
- 14. 50 pound / foot uniform load in the vertical down direction
- 15. 200 pound concentrated load at center in horizontal direction
- 16. 50 pound / foot uniform load in the horizontal direction
- Sample ID: 6' Summit 4" spacing w/ swivel attachment on one side and spindle attachment on the other side. 36" installed height. Secured in concrete with 4-1/4" wedge anchors on each post 1" embedment.

Load Case

- 1. 200 pound concentrated load at center in the vertical down direction
- 2. <u>-50 pound *4* foot uniform</u> load in the vertical down direction (300 pounds)
- 3. 200 pound concentrated load at center in horizontal direction
- 4 50 pound / foot uniform load in the horizontal direction (300 Pounds)

<u>Comments</u> No Visible Damage

No Visible Damage

No Visible Damage

No Visible Damage

Meets Requirements of BOCA

Respectfully Submitted,

DTG Mechanical

Peter Merther, PE

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Page 1 of 1