

TEST TYPE:	UL HAIL TEST
TESTING AUTHORITY:	UNDERWRITERS LABORATORIES
TEST NAME:	IMPACT RESISTANCE
TEST DATE:	DECEMBER 16, 2002
TEST COMPLETED BY:	ALPESH PATEL
TESTING LABORATORY	UNDERWRITER'S LABORATORIES

File R21264
Project 02NK51952

Date

REPORT

on

ROOFING SYSTEMS
And
ROOF COVERING MATERIALS, IMPACT RESISTANCE

Under The

CLASSIFICATION PROGRAM

Metal Forming, Inc.
Peachtree City, GA

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G E N E R A L

INVESTIGATION:

The purpose of this investigation was to evaluate a standing seam metal roof system in accordance with UL 2218, "Impact Resistance of Prepared Roof Covering Materials."

Based on the configuration of the metal panels, "1-1/2 Nail Strip" was considered representative of the following metal panels "1 in. Nail Strip", "1-1/2 Snap Lock", "1 in. Mechanical Lock", "1-1/2 Mechanical Lock".

D E S C R I P T I O N

PRODUCT COVERED:

The products covered by this Report are metal roof deck panels.

The products in this Report are Classified as to external fire exposure and impact resistance.

USE:

The product is intended for use as a building material as permitted by authorities having jurisdiction.

T E S T R E C O R D N O. 1

IMPACT RESISTANCE TESTS:

SAMPLES

- 1) Deck: 15/32 in. thick plywood.
Underlayment: Type 30, mechanically fastened.
Surfacing: "1-1/2 Nail-Strip" metal roof panels, No. 26 MSG, fastened to the deck with No. 10-12 x 1 in. long pancake head screws spaced 18 in. OC.

METHOD

The tests were conducted in accordance with the First Edition of the Standard Impact Resistance of Prepared Roof Covering materials, UL 2218.

This test method is intended to evaluate the effects of impact from various size steel balls at locations on the test assembly selected to be the most vulnerable.

The samples were subjected to six double impacts at various locations from a two-inch diameter ball as described in the Standard. Following all the impacts, the panels were inspected for fractures, tears or rupture of the panel.

RESULTS

The results of the impact resistance tests are reported below.

The results of the impact resistance tests were as follows:

<u>Ball Diameter, In.</u>	<u>Impact No.</u>	<u>Impact Locations</u>	<u>Results</u>
2	1	Rib	Pass
2	2	Rib	Pass
2	3	Rib	Pass
2	4	Rib	Pass
2	5	Rib	Pass
2	6	Rib	Pass
2	7	Rib	Pass
2	8	Rib	Pass
2	9	Rib	Pass
2	10	Rib	Pass
2	11	Rib	Pass
2	12	Rib	Pass

For those specimens reported as a "pass", there was no observed fracture, cracking, splitting or any other evidence of opening of the roof system.

C O N C L U S I O N

The following conclusions represent the judgment of Underwriters Laboratories Inc. based upon the results of the examination, tests and data analysis presented in this Report.
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The products covered by this Report are judged to be eligible for Classification and Follow-Up Service. The manufacturer is authorized to use the Laboratories' Classification Marking as shown below on such products which comply with the Follow-Up service Procedure and any other applicable requirements of Underwriters Laboratories Inc. Only those products which properly bear the Laboratories' Classification Marking are considered as Classified by Underwriters Laboratories Inc.

CLASSIFICATION

Roofing System Classification will be promulgated as described below:

OTHER SYSTEMS

Class C

- 1) Deck: C-15/32 Incline: Unlimited Impact: 4
 Underlayment: Any UL Classified base/ply sheet, min. 26 MSG.
 Surfacing:
- 1-1/2 in. Nail-Strip
 - 1 in. Nail Strip
 - 1-1/2 Snap Lock
 - 1 in. Mechanical Lock
 - 1-1/2 Mechanical Lock

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