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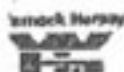
REPORT NO. 3025606

FIRE RETARDANCY TEST
OF A RENEW PLASTICS LUMBER DECKING
BOARDS
AS A DECK MATERIAL

FOR

PLASTIC LUMBER YARD, LLC
220 E. WASHINGTON STREET
NORRISTOWN, PA. 19401

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Reported by,



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Reviewed by,

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INTERTEK TESTING SERVICES

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INTRODUCTION

Intertek Testing Services NA (ITS) Fire Testing Laboratory in Middleton, Wisconsin conducted an investigation of the external fire resistance characteristics of a roof covering system.

This test was conducted in accordance with the criteria in ASTM D6662-01 "Standard" Specification for Polyolefin Based Plastic Lumber Decking Boards". The test results described in this report are limited to the submitted items.

DESCRIPTION OF MATERIAL AND ROOF COVERING SYSTEM

The product tested in this report is a Plastic Lumber deck board. This test was conducted in accordance with the criteria in ASTM D6662-01 "Standard" Specification for Polyolefin Based Plastic Lumber Decking Boards". The test results described in this report are limited to the submitted items.

Deck: 2 x 4 wood supports with Plastic Lumber 5-1/2" wide by 0.825" thick fastened with # 8, 2" long deck screws. The boards were fastened with a gap of 1/4" between boards. The deck measured 40" wide by 52" long.

TEST ASSEMBLY CONSTRUCTION

1. The decks were made by ITS personnel according to specifications of the standards.
2. The test material was submitted by the client.
3. The test assemblies were constructed by client per installation instruction.

TEST PROCEDURE

The decks were tested per test method E108 for class "C" brand test with the following modifications. The deck was located in a horizontal position, 15 Class "C" brands are to be located within 24 inches from the front of the deck. The last row of five shall be placed 24 inches from the front of the test assembly, on the joint. The other two rows of brands shall be placed 8" apart from each other toward the front of the deck. The spacing between brands in a row shall be 4-6 inches apart.

Terminate the test at 20 minutes or if the flame extends beyond the length of the deck or spreads laterally to the width of the deck.

INTERTEK TESTING SERVICES

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TEST DATA

BURNING BRAND TESTS RESULTS

System Description

Sample Test #1 Plastic lumber deck 1
Sample Test #2 Plastic lumber deck 2

Test Conditions

Test Date:	6/04/02	6/05/02
Ambient Air Temperature:	60°F	59°F
Air Velocity:	1056 +/-44 fpm	1056 +/-44 fpm
Type of Brands:	Class "C"	Class "C"

Test Results

	<u>Deck #1</u>	<u>Deck #2</u>
Slope of Test Decks:	horizontal	horizontal
Evidence of smoke From bottom of deck:	N/A	N/A
Evidence of smoke from the system	N/A	N/A
Sustained Flaming on Underside of deck:	N/A	N/A
Deck Exposure:	N/A	N/A
Lateral Flame Spread	6"	4"
Upslope Flame Spread	<8"	<8"

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Test Observations:

Deck #1

<u>Time</u> (Min:Sec)	<u>Observations</u>
00:00	1 st row of brands placed on deck.
03:30	2 nd row of brands placed on deck.
07:00	3 rd row of brands placed on deck.
10:00	30% of the brands still flaming.
14:00	Brands starting to melt top coat, left front corner of deck.
14:50	3 rd row of brand on joint starting to burn through deck.
15:00	Top surface on fire and flaming.
16:00	Plastic dripping onto the floor, flaming.
17:00	Top surface still flaming
20:00	Surface flame continue to spread laterally, approximately 2".
22:00	Plastic continues to drip on floor
24:00	Surface flame continues to grow consuming 15% of the board where the first row of brands were placed.
24:30	2 X 4 wood supports are on fire.
25:00	Surface flame spreading laterally approximately 5".
27:00	Laterally flame still spreading.
28:00	Melted plastic running on to floor, flaming and, creating large pools on floor.
30:00	Test stopped; Fire extinguished; Lateral flame spread 6".

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Deck #2

Time
(Min:Sec)

Observations

00:00	1 st row of brands placed on deck.
03:30	2 nd row of brands placed on deck.
07:00	3 rd row of brands placed on deck.
11:00	40% of the brands still flaming.
14:00	Plastic dripping onto the floor, flaming.
15:00	Brands starting to melt top coat, left front corner of deck.
16:00	3 rd row of brand on joint starting to burn through deck.
18:00	Top surface on fire and flaming.
20:00	Surface flame continue to spread laterally, approximately 1.5".
22:00	Plastic continues to drip on floor
23:00	2 X 4 wood supports are on fire.
24:00	Surface flame spreading laterally approximately 4".
25:00	Melted plastic running on to floor, flaming and, creating large pools on floor.
28:00	No spread of flame up slope, lateral spread 2-4" from edge of deck.
30:00	Test stopped; Fire extinguished.

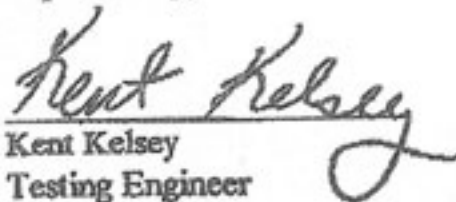
INTERTEK TESTING SERVICES

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CONCLUSION

The plastic lumber deck boards as described herein, complied the acceptance criteria in ASTM D6662-01 "Standard Specification for Polyolefin Based Plastic Lumber Decking Boards". The flame did not spread laterally to the width of the deck or extend beyond the length of the deck.

Reported by,


Kent Kelsey
Testing Engineer

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Chief Engineer ITS (NA)