

CLIENT: Davinci Roofscapes
13890 W. 101 Street
Lenexa, KS 66215

Test Report No: RJ6567P-1	Issue Date: November 2, 2018
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SAMPLE ID: Davinci Select Shake

SAMPLING DETAIL: Test Samples were pulled from production at the clients manufacturing facility by a Third Party Sampling Representative on September 25, 2018.

DATE OF RECEIPT: Samples were received at QAI Laboratories on October 9, 2018.

TESTING PERIOD: October 19, 2015

AUTHORIZATION: Testing was authorized by Tim Gentry for QAI Proposal Number 18MB08302R4.

TEST REQUESTED: UL 2218, Impact Resistance of Prepared Roof Covering Materials.

TEST RESULTS: Detailed test results are provided on page 3 of this report.

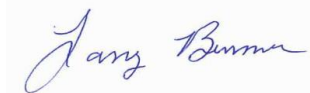
STATEMENT OF CONFORMANCE: The Davinci Shake **passed** the test and met the Class 4 requirements of UL2218, Impact Resistance of Prepared Roof Covering Materials.

Tested By



Delmy Elias
Test Technician

**Signed for and on behalf of
QAI Laboratories, Inc.**



Larry Burmer
Physical Lab Supervisor

IMPACT RESISTANCE TEST PER UL2218

Test Deck Preparation

Two 3' x 3' test decks were constructed for the test. Each deck consisted of a 2 x 4 wood batten frame with one vertical support batten midspan of the deck, $1\frac{5}{32}$ " thick A-C Exterior Grade, Group1 Plywood, #30 roofing felt and Davinci Select Shakes. The shakes were installed on the deck following the manufacture's installation instructions.

Test Procedure

The test decks were individually placed on a solid level surface and the roof tiles subjected to two coincident drops at six different locations using a 2" diameter steel ball dropped from a height of 20 feet. After the first drop at each location, the resultant depression was measured and recorded. At the completion of the test, the tiles were removed from the deck and visually examined for damage under 5X magnification.

Test Requirements

- 1) The prepared roof covering material exposed surface, back surface and underneath layers shall show no evidence of tearing, fracturing, cracking, splitting, rupture, crazing or other evidence of opening through any prepared roof covering layer.
- 2) For plastic roof covering materials, a surface crack shall not be determined to be a failure. A crack that extends through the cross-section of the roof covering material layer shall be determined to be a failure.
- 3) Cosmetic damage in and of itself shall not be determined to be a failure. Cosmetic damage such as denting, damage not extending through the cross-sectional area of a roof covering material layer, cracking of any paint finish, etc. shall not be determined to be a failure.

IMPACT RESISTANCE TEST PER UL2218

Test Results

Steel Ball Parameters

Diameter: 2"
 Weight: 1.15 lbs.
 Composition: Chrome Steel
 Hardness (Rockwell C): 60

Drop Location	Drop No.	Depression Depth (in)	
		Deck No.1	Deck No.2
Flat Surface	1	0.040	0.114
Flat Surface	2	****	****
Unsupported Area	1	0.041	0.099
Unsupported Area	2	****	****
Tile Edge	1	0.025	0.014
Tile Edge	2	****	****
Tile Corner	1	0.003	0.056
Tile Corner	2	****	****
Overlap Area	1	0.151	0.045
Overlap Area	2	****	****
Tile Joint	1	0.129	0.014
Tile Joint	2	****	****

Observations

No tearing, fracturing, cracking, splitting, rupture, crazing or other evidence of opening through any prepared roof covering layer was observed at any of the twelve impact locations when viewed through 5X magnification.

***** <END OF REPORT> *****