Project No.: 01-5849-272e Report Date: October 3 1980

Sponsor: AmDal Chemical Corporation Date Material Received:

P. O. Box 31707 May 22, 1980

Dallas) Texas 75231 Date of Test: August 29, 1980

TEST PROCEDURE

TEST RESULTS

Specimen No. 1

No flying or falling brands were produced.

Specimen No. 2

No flying or falling brands were produced.



S O U T H WE S T R E S E A R C H I N S T I T U T E

POST OFFICE DRAWER 28510 1J220 CULEBRA R'OAO SAN ANTONIO. TEXAS 78284 • (512) 884 -5111

DEPARTMENT OF FIRE TECHNOLOGY

FLYING BRAND

ANSI/ASTM E108 FIRE TESTS OF ROOF COVERINGS

A test deck was mounted on the framework and the blower adjusted to produce an air current of 12 mph. The test deck, located 33 inches from the air outlet duct, was subjected to a luminous gas Harne approximately the width of the deck at its bottom edge. The gas supply was regulated to develop a tempera­ture of 1300 ±50oF, as determined by a No. 16 B&S gauge (1.63-mm) Chromel­ Alumel wire thermocouple located 1 in. (25 mm) above the surface and 1/2 In. (13 mm) toward the source of flame from the lower edge of the test deck.

The flame was applied continuously for 4 minutes. The air current was main­tained throughout the test and until all evidence of flame, glow, and smoke had disappeared.

TEST SPECIMENS

The test decks were 3-1/3 ft (1.0 m) wide by 4-1/4'ft (1.30 'm) long. Nominal 1 x 4-in. No. 2 white pine planks, 3-1/3 ft (1.0 m) long, spaced 2 in. (50.8 mm) apart were securely nailed re two nominal 2 x 4-in. No. 2 construction grade wood battens located under and flush with the outer edges of the deck. The wood shingles were nailed to the wood substrate. A 6-1/2-in. (16. 51mm) length of exposed shingle surface was used in constructing the test decks.

TEST CONDITIONS

The test decks were exposed to 3 cycles (3 weeks) of rain/drying simulating 200 in. of rain. The test decks were stored for three days at 70 ± 3°F and 50 ± S-percent relative humidity prior to testing. Moisture contents, as deter­mined by a moisture meter, were in the, range of 8 to 12 percent. The slope of the test deck was 5 In. per horizontal foot. The wind current was 1040 to 1070 ft/min. The ambient temperature was 80 to 85°F.



SAN ANTONIO. HOUSTON. TEXAS. AND WASHINGTON. D.C.

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ACCEPTANCE REQUIREMENTS

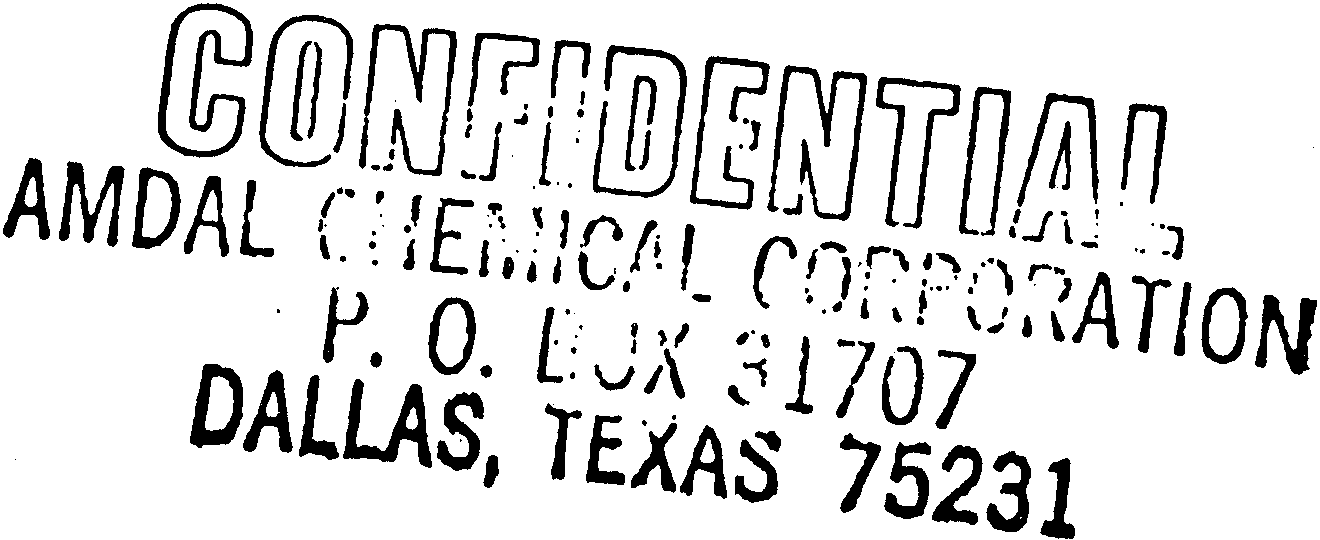
In the flying brand test, no flying, flaming brands, nor particles that continue to glow after reaching the floor may be produced.

ACCEPTANCE LEVEL

Class A

Class C X

Class B Unacceptable



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Reported by: *~JS.* ~'-/~:..~

Eugene L. Anderson

Senior Research Engineer

Special Projects

