Each test was continued until the brand was totally consumed and all evidence of flame, glow, and smoke disappeared from both the exposed surface of the material being tested and the underside of the test deck.

 TEST SPECIMENS

The test decks were 3-1/3 ft (1.0 rn ) wide x 4-1/4 ft (1.30 rn ) 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 to 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. 16.51-cm) length of exposed shingle surface was used in constructing the test

decks.



OCT 9

1980

POST OFFICE DRAWER 28510 6220 CUlEBRA ROAD SAN ANTONIO. TEXAS 78284

DEPARTMENT OF FI RE TECHNOLOGY

A test deck was mounted on the framework and the blower adjusted to produce an air current of 12 mph. The test deck was located 60 inches (1.52 rn ) from the air outlet duct. The gas burner was removed. The air current was main­tained throughout the test.

The Class C test brands consisted of lumber 1-1/2 x 1-1/2 in. (38.1 x 38.1 mm) square and approximately 25/32 in. (19.85 mm) thick made of dry OOl,;glas fir lumber, free of knots and pitch pockets. .Twenty-five nominal 1-1/ 2 x *1-1/2* x 25/32-in. pieces were used for the test. Each brand had a 1.8-in. (3-mm) kerf sawed to one-half depth at the center with the kerf on each flat side rotated 900 from the opposite side kerf. The dry weight of the finished brands was 50 ± 5 g.

The test brands were exposed to a burner flame for 2 minutes, during which time they were rotated' so as to present each 1-1/2 x 1-1 /2-in. (38 x 38-mm) surface to the flame for 1:00 minute.

A brand was placed on the surface of the test deck 12 in. from the bottom edge of the deck and 6 in. from the side. The brands were placed so that the kerf in contact with the test deck was parallel to the direction of air flow. Each consecutive brand was applied 1 :00 minute after placement of the preceeding brand and was symmetrically located until all 25 brands were placed onto the test deck. The brands were secured in place by an 18-gauge wire stretched across the shingle course and secured on the sides.

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

(512) 684·5111

BURNING BRAND TEST

ANSI/ASTM E108-78 FIRE TESTS OF ROOF COVERINGS

 Project No.: 01-5849-272c

Sponsor: AmDal Chemical Corporation P.O. Box 31707

Dallas, Texas, 75231

Report Date: October 3, 1980 Date Material Received:

May 22, 1980

Date of Test: September 23, 1980

TEST PROCEDURE

**rn. tepol1 •** for •.•••• tn'~hOn of 1M s~ II m • ., Qoe *\,I""* It" "1 .nfl'.'V 'Of '~,",-'g(,rM 0' M\*:1.t"nq ""OdYl.l •• <.cr:gl •• nce horn dutl' ~\,tled ~go.," ••.• fhQf" •••. ~ ••.. ,,, •• '.,pot'I ()I ,''- •••• Mf"l. "), '1'\41 ."""'\,1'11 ~ •• """I w •.• .-1 ,n p'~b"CII\, VI ·ttJ'W ••. It~ln".

S A N A N T O N I O. H O U S T O N. T E X A S. A N D W A S H I N G T O N, D. C.

Reported by: ~

Eugene L. Anderson

Senior Research Engineer

Special Projects



Project No. OI-5849-272C

October 3, 1980

Page 2



ACCEPT ANCE LEVEL

Class A \_\_\_\_\_\_\_

Class C X

ACC EPTANCE REQUIR EMENTS

In the spread of flame test, no flying, flaming brands, nor particles that con­tinue to glow after reaching the floor may be produced. Flaming shall not have spread to the top of the test deck. There shall be no significant lateral spread of flame from the path exposed to the flame.

ClassB Unacceptable