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STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS PERFORMED IN ACCORDANCE WITH ASTM E84-16

MATERIAL ID: ***MOZ METAL WITH POLYCOAT GLOSS FINISH***

FINAL REPORT
Consisting of 7 Pages

SwRI® Project No.: 01.22383.17.063c
Test Date: July 28, 2017
Report Date: August 23, 2017

Prepared for:

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Executive Summary

This report presents the test results for a specimen submitted by Moz Designs Inc., located in Oakland, California, and tested at Southwest Research Institute's (SwRI's) Fire Technology Department, located in San Antonio, Texas. The test is conducted in accordance with the procedure outlined in ASTM E84-16, *Standard Test Method for Surface Burning Characteristics of Building Materials* (NFPA 255, ANSI/UL 723 and UBC 8-1).

Material ID: ***Moz Metal with Polycoat Gloss Finish***

- Flame Spread Index (FSI): 25
- Smoke Developed Index (SDI): 20

Test Criteria.

Classification	Flame Spread Index	Smoke Developed Index
A	0 – 25	0 – 450
B	26 – 75	0 – 450
C	76 – 200	0 – 450

1.0 INTRODUCTION

The purpose of this test method is to determine the relative burning behavior according to the standard ASTM E84 of materials by observing the flame spread along the specimen. Flame Spread and Smoke Developed index are reported in Appendix A. However, there is not necessarily a relationship between these two measurements.

Test specimens are conditioned as appropriate in an atmosphere maintained between 68 and 78 ºF and 45 to 55% relative humidity. Immediately prior to the test, the specimen is mounted in the furnace with the side to be tested facing the test flame. Cement board is placed on the unexposed side of the specimen to protect the furnace lid assembly. Sometimes, because of the nature of the material undergoing testing, additional support (e.g. wire, wire and rods, rods, and/or bars) is used to ensure that the specimen will remain in position during the test. The use of supporting materials on the underside of the test specimen may lower the Flame Spread Index from that which might be obtained if the specimen could be tested without such support, and the test results do not necessarily relate to indices obtained by testing materials without such support.

Two model building codes (2015 International Building Code®, Chapter 8 *Interior Finishes*, Section 803 *Wall and Ceiling Finishes*; NFPA 5000, Chapter 10 *Interior Finish*, Section 10.3 *Interior Wall or Ceiling Finish Testing and Classification*) classify materials based on the Flame Spread and Smoke Developed indices.

This standard should be used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions and should not be used to describe or appraise the fire-hazard or fire-risk of materials, products, or assemblies under actual fire conditions. However, results of the test may be used as elements of a fire-hazard assessment or a fire-risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard or fire risk of a particular end use.

The results apply specifically to the specimens tested, in the manner tested, and not to the entire production of these or similar materials, nor to the performance when used in combination with other materials. More detailed results with graphical illustrations may be found in Appendix A.

2.0 DESCRIPTION OF SPECIMEN

MATERIAL ID:*	*Moz Metal with Polycoat Gloss Finish*
DATE RECEIVED:	July 25, 2017
DESCRIPTION:*	Aluminum metal sheet with high performance coating
THICKNESS:*	1 mm (nominal)
WEIGHT:	4 kg (nominal)
COLOR:	Light Brown
SUBSTRATE:	N/A
ADHESIVE:	N/A
SPECIMEN SIZE:	2438 × 610 mm (nominal) (received 3 pieces)
COMPOSITION:*	metal
PREPARED BY:	Ready-to-test
CONDITIONING TIME:	3 days at 73.4 ± 5 ^{o}F, (23 ± 2.8 ^{0}C), 50 ± 5% humidity
SUPPORT USED:	None
WITNESSED BY:	N/A

* From Client's material description and/or instructions

APPENDIX A

TEST RESULTS

(CONSISTING OF 2 PAGES)

Client: Moz Designs Inc.
SwRI Project No.: 01.22383.17.063c
Test Date: July 28, 2017
Material I.D.: *Moz Metal with Polycoat Gloss Finish*

TEST RESULTS

ROUNDED FLAME SPREAD INDEX (FSI):	25
ROUNDED SMOKE DEVELOPED INDEX (SDI):	20

TEST DATA

UNROUNDED FSI:	27.3
UNROUNDED SDI:	19.4
FS*TIME AREA (Ft*Min):	53.0
SMOKE AREA (%*Min):	26.9
FUEL AREA (ºF*Min):	890.2

OBSERVATIONS DURING TEST

IGNITION TIME (Min: Sec):	00:31
MAXIMUM FLAME FRONT ADVANCE (Ft.):	6.1
TIME TO MAXIMUM ADVANCE (Min: Sec):	1:42
MAXIMUM TEMP. AT EXPOSED TC (ºF):	100
TIME TO MAXIMUM TEMP. (Min: Sec):	10:00
TOTAL FUEL BURNED (Cu. Ft.):	52.0
DRIPPING (Min: Sec):	None
FLAMING ON FLOOR (Min: Sec):	00:55
AFTERFLAME TOP (Min: Sec):	None
AFTERFLAME FLOOR (Min: Sec):	None
SAGGING (Min: Sec):	None
DELAMINATION (Min: Sec):	None
SHRINKAGE (Min: Sec):	None
FALLOUT (Min: Sec):	00:54

CALIBRATION DATA

RED OAK SMOKE AREA (%*Min):	110.9
RED OAK FUEL AREA (ºF*Min):	4942
GRC BOARD FUEL AREA (ºF*Min):	898

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