

FUNDERMAX GMBH

LETTER OF RESULTS

SCOPE OF WORK

ASTM E84 TESTING ON FUNDERMAX 13MM MAX COMPACT & 19MM MAX COMPACT

REFERENCE PROJECT NUMBERS

I0002.01-121-24-R0 & I0002.02-121-24-R0

TEST DATES

01/26/18 & 01/29/18

ISSUE DATE

02/26/18

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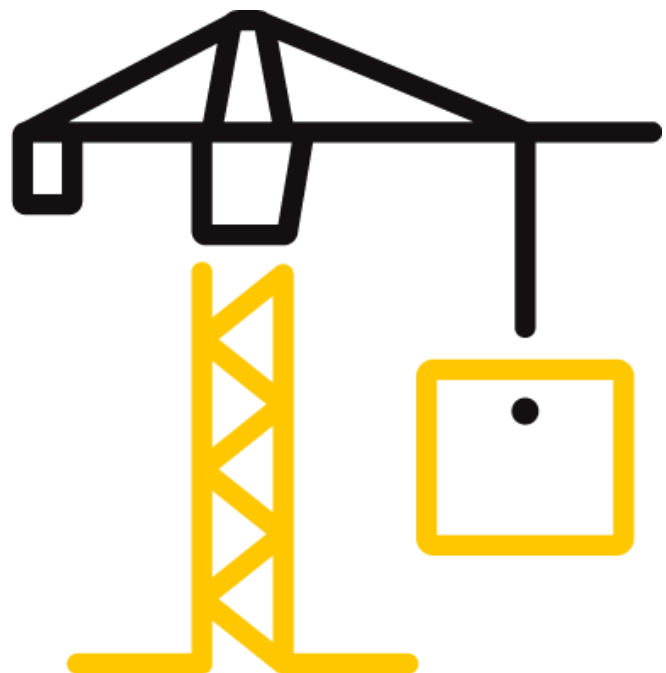
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LETTER OF RESULTS FOR FUNDERMAX GMBH

Project No.: I0002.01-121-24-R0 & I0002.02-121-24-R0

Date: 02/22/18

CERTIFICATE ISSUED TO

FunderMax GmbH

Klagenfurter Str. 87-89

9300 St. Veit an der Glan

Austria

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by FunderMax GmbH, Veit an der Glan, Austria, to evaluate the flame spread and smoke developed properties of 13 mm MAX Compact and 19 mm MAX Compact. Testing was conducted at the Intertek B&C test facility in York, Pennsylvania. Results obtained are tested values and were secured by using the designated test method(s). A summary of test results and the complete graphical test data is reported herein.

This report does not constitute a complete test report, certification of this product, nor an opinion or endorsement by this laboratory. For full details of the projects, reference Intertek-ATI test report numbers I0002.01-121-24-R0 and I0002.02-121-24-R0.

SECTION 2

SUMMARY OF TEST RESULTS

Series/Model: 13 mm MAX Compact and 19 mm MAX Compact by Fundermax GmbH

ASTM E84 Test Results for 13mm MAX Compact (I0002.01-121-24-R0)

FLAME SPREAD INDEX	SMOKE DEVELOPED INDEX
20	150

ASTM E84 Test Results for 19mm MAX Compact (I0002.02-121-24-R0)

FLAME SPREAD INDEX	SMOKE DEVELOPED INDEX
25	130

For INTERTEK B&C:

COMPLETED BY:	Ben Samson	REVIEWED BY:	Ethan Grove
TITLE:	Technician – Fire Testing	TITLE:	Manager – Fire Testing
SIGNATURE:		SIGNATURE:	
DATE:	02/26/18	DATE:	02/26/18

BTS:ddr

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SECTION 3

TEST METHOD

The assembly was evaluated in accordance with the following:

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*

SECTION 4

TEST PROCEDURE

This report describes the results of testing conducted in accordance with ASTM E84-17a; Standard Test Method for Surface Burning Characteristics of Building Materials. The test method is for comparative surface burning behavior of building materials by determining a flame spread index (FSI) and a smoke developed index (SDI). This test is generally applicable to exposed surfaces, such as finish materials for ceilings or walls, provided that the material or assembly of materials, by its own structural quality or the manner in which it is tested and intended for use, is capable of supporting itself in position or being supported during the test period.

“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. This method may not be appropriate for obtaining comparative surface burning behavior of some cellular plastic materials. Testing of materials that melt, drip, or delaminate to such a degree that the continuity of the flame front is destroyed, results in low flame spread indices that do not relate directly to indices obtained by testing materials that remain in place.” – ASTM E84-17a Section 1.3

The purpose of the method is to determine the relative burning behaviour of the material by observing the flame spread along the specimen. Flame spread and smoke density developed are reported, however, there is not necessarily a relationship between these two measurements.

It is the expressed intent of the test method to provide only comparative measurements of surface flame spread and smoke density of the tested material against measurements for select grade red oak flooring and fiber-cement board when tested under specific fire exposure conditions. The test method exposes a nominal 24-ft (7.32-m) long by 20-in. (508-mm) wide test specimen to a controlled air flow and flaming fire exposure adjusted to produce a specific flame spread distance vs time calibration using select grade red oak flooring.

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SECTION 4 (Continued)

TEST PROCEDURE

The test method does not provide information regarding heat transmission through the tested surface, the effect of aggravated flame spread behavior resulting from the proximity of combustible walls and ceilings, or the classification or definition of materials as non-combustible using flame spread index alone.

This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory 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 this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

There were no deviations from the requirements prescribed in ASTM E84.

SECTION 5

TEST SPECIMEN DESCRIPTION

For complete assembly description and installation procedures, reference Intertek-ATI Test Report numbers I0002.01-121-24 and I0002.02-121-24

13mm MAX Compact:

MANUFACTURER*	FunderMax GmbH
PRODUCT TYPE*	High pressure laminate (HPL)
SERIES/MODEL*	MAX Compact
COMPOSITION*	High pressure decorative laminates (HPL) acc. To EN 438 type CGS – sheets based on thermosetting resins (usually called laminates)
CONDITIONING TIME	72+ hr.
SPECIMEN SIZE	24 in. wide x 161-1/2 in. long
THICKNESS	1/2 in.
SPECIMEN SECTIONS	2
TOTAL WEIGHT	100.4 lbs.
COLOR	White
SIDE TO FLAME*	Client specified material was bilateral
SUPPORT USED*	Material was self-supporting
MOUNTING METHOD	Material was self-supporting
SUBSTRATE USED*	No substrate was utilized
CEMENT BOARD	1/4 in. thick fiber cement board was placed on top of the sample.

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Date: 02/22/18

SECTION 5 (Continued)

TEST SPECIMEN DESCRIPTION

19mm MAX Compact:

MANUFACTURER*	FunderMax GmbH
PRODUCT TYPE*	High pressure laminate (HPL)
SERIES/MODEL*	MAX Compact
COMPOSITION*	High pressure decorative laminates (HPL) acc. To EN 438 type CGS – sheets based on thermosetting resins (usually called laminates)
CONDITIONING TIME	72+ hr.
SPECIMEN SIZE	24 in. wide x 161-1/2 in. long
THICKNESS	3/4 in.
SPECIMEN SECTIONS	2
TOTAL WEIGHT	145.3 lbs.
COLOR	White
SIDE TO FLAME*	Client specified material was bilateral
SUPPORT USED*	Material was self-supporting
MOUNTING METHOD	Material was self-supporting
SUBSTRATE USED*	No substrate was utilized
CEMENT BOARD	1/4 in. thick fiber cement board was placed on top of the sample.

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Date: 02/22/18

SECTION 6

TEST RESULTS

13mm MAX Compact:

TEST RESULTS	
Test Date	01/26/18
Test Operator	Ben Samson
Flame Spread Index (FSI)*	20
Smoke Developed Index (SDI)**	150
Red Oak Calibration (% * Min)	91.14

*Flame Spread Index (FSI) is rounded to the nearest multiple of five per Section 9.1 of ASTM E84

**Smoke Developed Index (SDI) is rounded to the nearest multiple of five when under 200 and rounded to the nearest 50 points when 200 or over per Section 9.1 of ASTM E84

TEST DATA	
FSI (unrounded)	20.4
SDI (unrounded)	148.7
FS * Time Area (Ft * Min)	39.7
Smoke Area (% * Min)	135.5
Fuel Area (°F * Min)	6273.5

TEST OBSERVATIONS	
Ignition Time	01:38 (Min:Sec)
Max Flame Front Advance	6.2 Feet
Time to Max Flame Front	05:06 (Min:Sec)
Max Temp At Exposed T/C	798.6°F
Time To Max Temp	09:59 (Min:Sec)
Dripping Observed	None
Flaming On Floor Observed	05:54 (Min:Sec)
After Flame Top Observed	10:02 (Min:Sec)
After Flame Floor Observed	None
Sagging Observed	None
Delamination Observed	None
Shrinkage Observed	None
Fallout Observed	None
Cracking Observed	None
Observations After the Test	None

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SECTION 6 (Continued)

TEST RESULTS

19mm MAX Compact:

TEST RESULTS	
Test Date	01/29/18
Test Operator	Ben Samson
Flame Spread Index (FSI)	25*
Smoke Developed Index (SDI)	130**
Red Oak Calibration (% * Min)	91.14

*Flame Spread Index (FSI) is rounded to the nearest multiple of five per Section 9.1 of ASTM E84

**Smoke Developed Index (SDI) is rounded to the nearest multiple of five when under 200 and rounded to the nearest 50 points when 200 or over per Section 9.1 of ASTM E84

TEST DATA	
FSI (unrounded)	26.2
SDI (unrounded)	129.8
FS * Time Area (Ft * Min)	50.8
Smoke Area (% * Min)	118.3
Fuel Area (°F * Min)	6076.9

TEST OBSERVATIONS	
Ignition Time	01:18 (Min:Sec)
Max Flame Front Advance	7.4 Feet
Time to Max Flame Front	06:52 (Min:Sec)
Max Temp At Exposed T/C	751.1°F
Time To Max Temp	09:58 (Min:Sec)
Dripping Observed	None
Flaming On Floor Observed	05:17 (Min:Sec)
After Flame Top Observed	10:02 (Min:Sec)
After Flame Floor Observed	10:02 (Min:Sec)
Sagging Observed	None
Delamination Observed	None
Shrinkage Observed	None
Fallout Observed	None
Cracking Observed	00:29 (Min:Sec)
Observations After the Test	None