

European B1
Fire Rating

soft collection · softwall + softblock
Fire Retardant (FR) Treated textile products

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soft collection textile products European B1 fire rating

molo soft collection textile products are completely fire retardant, and will not maintain a flame. textile softwall + softblock have achieved the European standard B1. This rating is consistent with use in all types of occupancies. All products should always be kept away from any open flame or heat source to avoid possible damage.

Test report No. 210066

for applying of a required “Verwendbarkeitsnachweis”
issued 26.02.2021

Applicant: Molo Design Ltd.
1470 Venables St.
Vancouver, BC
V5L 2G7

Date of order: 21.01.2021
Date of sampling: *no official sampling of the specimen by a representative of Warringtonfire Frankfurt GmbH*
Date of arrival: 10.02.2021
Date of test: 25.02.2021

Order

Testing of the flammability (building class B1) according to DIN 4102-1 (May 1998)

Description / designation of the test object

Product name: FR 1057D Tyvek, coated on two sides for soft collection

Description of the relevant test procedure

DIN 4102 part 1 (Mai 1998)

This test report does not replace the required „Verwendbarkeitsnachweis“. It is only used for issuing the “Verwendbarkeitsnachweis”.

1. Description of the test material

1.1 Details of the customer:

Product name: FR 1057D Tyvek, coated on two sides for soft collection

Product description:

1 layer of the FR 1057D white textile used to construct our honeycomb in softwall + softblock + softseating + benchwall + cantilever table

Main componenets: 1057D Tyvek

Thickness: 940 mm roll width thickness: avg 160µm

Total surface weight: weight: 55 g/m² (53 – 58 g/m²)

Colour: white with phosphorous based FR

Intended end use of the product: interior space partitions + light shades
(softwall + softblock + softlight)

1.2 By Warringtonfire Frankfurt GmbH determined values:

material: coated textile

colour: white

thickness: 0,17 mm

square weight: 79 g/m²

Testing after storing 14- days under climatic conditions (23°C / 50 % rel. humidity).

2. Test results

2.1. Brandschachtprüfung according to DIN 4102-1

Sample A: Material tested in production direction:

Sample B: Material tested cross to the production direction:

| Test results of the Brandschacht tests part 1 | | | | | | |
|---|---|--------------------------|-------|-------|---|---|
| line no. | | Measurements test sample | | | | |
| | | | A | B | C | D |
| 1 | <u>no. test arrangement according to DIN 4102 part 15, table 1</u> | | 1 | 1 | | |
| 2 | <u>flame height max. over lower sample edge</u> time ¹⁾ | cm | 30 | 30 | | |
| | | min : s | 00:06 | 00:06 | | |
| 3 | <u>ascertainties on the front side</u> Flaming/glowing time ¹⁾ | min : s | 00:02 | 00:02 | | |
| 4 | <u>melting / burning through</u> time ¹⁾ | min : s | 00:04 | 00:04 | | |
| 5 | <u>ascertainties on the back side</u> Flaming/glowing time ¹⁾ | min : s | no | no | | |
| 6 | discolouring time ¹⁾ | min : s | no | no | | |
| 7 | <u>burning droplets</u> begin ¹⁾ | min : s | no | no | | |
| 8 | extent | | | | | |
| 9 | occasional dropping of material constant dropping of material | | | | | |
| 10 | <u>separating from burning sample parts</u> begin ¹⁾ | min : s | no | no | | |
| 11 | occasional separating parts | | | | | |
| 12 | constant separating parts | | | | | |
| 13 | duration of burning on the sieve tray (max.) | min : s | no | no | | |
| 14 | influence on the burner flame by dropping of / separating material time ¹⁾ | min : s | no | no | | |
| 15 | <u>earlier end of test</u> end of the fire scenario on the sample ¹⁾ | min : s | no | no | | |
| 16 | time of a possible resulted test stop ¹⁾ | min : s | | | | |

¹⁾ time from start of test

| Test results of the Brandschacht tests part 2 | | | | | | |
|---|---|---------------|--------------------------|--------------------|---|---|
| line no. | | | Measurements test sample | | | |
| | | | A | B | C | D |
| 17 | <u>flaming after end of test</u> duration | min : s | no | no | | |
| 18 | number of sample | | no | no | | |
| 19 | front side of sample | cm | no | no | | |
| 20 | backside of sample | | no | no | | |
| 21 | flame length | | no | no | | |
| 22 | <u>glowing after end of test</u> duration | min . s | --/-- | --/-- | | |
| 23 | number of sample | | no | no | | |
| | place of occurrence | | no | no | | |
| 24 | lower sample part | | no | no | | |
| 25 | upper sample part | | no | no | | |
| 26 | front side of sample | | no | no | | |
| 27 | backside of sample | | | | | |
| 28 | <u>smoke density</u> < 400 % x min | | 3 | 2 | | |
| 29 | > 440 % x min | | | | | |
| 30 | diagram in annex no. | | 1 | 2 | | |
| 31 | <u>residual length</u> single results | cm | 67 / 67 67 / 67 | 67 / 68 68 / 68 | | |
| 32 | average of the single results | cm | 67 | 67 | | |
| 33 | photo of the sample on page | | 3 | 3 | | |
| 34 | <u>smoke temperature</u> max. of the average results | °C min : s | 118 | 117 | | |
| 35 | time ¹⁾ | | 09:19 | 09:49 | | |
| 36 | diagram in annex no. | | 1 | 2 | | |

¹⁾ time from start of test

Remarks: Since in the tests carried out in the fire shaft, the average value of the residual length was > 45 cm according to DIN 4102-16 could be dispensed without further tests; melting of the sample

2.1.2 Appearance of the specimen after the test:

sample A



sample B



2.2 Normal flammability test according to DIN 4102-1

Test with edge ignition without deposit
Flame application on: lower sample edge
Edge ignition

Length direction

| Sample-no. | 1 | 2 | 3 | 4 | 5 |
|--|----------------------------|----|----|----|----|
| Time from start of test | | | | | |
| Ignition point [s] | 1 | 1 | 1 | 1 | 1 |
| Reaching the measuring mark within 20 seconds | no | no | no | no | no |
| Self-extinguishing of the flame [s] | 5 | 4 | 5 | 9 | 4 |
| Max. flame height [mm] | 30 | 40 | 40 | 80 | 40 |
| Time [s] | 3 | 3 | 3 | 7 | 3 |
| End of afterflaming [s] | - | - | - | - | - |
| End of afterglowing [s] | - | - | - | - | - |
| Flames extinguished after [s] | - | - | - | - | - |
| Smoke development (visual impression) _{low / moderate / strong} | Moderate smoke development | | | | |
| Separating from burning material | no | no | no | no | no |
| Time [s] | - | - | - | - | - |

Remarks: none

Cross direction

| Sample-no. | 1 | 2 | 3 | 4 | 5 |
|--|----------------------------|----|----|----|----|
| Time from start of test | | | | | |
| Ignition point [s] | 1 | 1 | 1 | 1 | 1 |
| Reaching the measuring mark within 20 seconds | no | no | no | no | no |
| Self-extinguishing of the flame [s] | 4 | 4 | 5 | 4 | 6 |
| Max. flame height [mm] | 40 | 40 | 70 | 40 | 60 |
| Time [s] | 3 | 3 | 4 | 3 | 5 |
| End of afterflaming [s] | - | - | - | - | - |
| End of afterglowing [s] | - | - | - | - | - |
| Flames extinguished after [s] | - | - | - | - | - |
| Smoke development (visual impression) _{low / moderate / strong} | moderate smoke development | | | | |
| Separating from burning material | no | no | no | no | no |
| Time [s] | - | - | - | - | - |

Remarks:

Appearance of the sample after the small burner test:



3. Assessment

The material described in chapter one fulfils the requirements of the building class B2 according to DIN 4102-1 (Mai 1998).

The determined results showed that the material fulfills the requirements

for the B1 classification

according to DIN 4102-1 (May 1998).

Special note

The fire test result is only valid for the material described in chapter one in the tested colour, thickness and surface weight.

The distance to other plane material must be more or equal then 40 mm.

The material wasn't tested after an outside storage.

In combination with other materials (for example coatings, deposits) the burning behaviour could be influenced unfavourable so that the classification above is not valid any longer. According to DIN 4102-1 the burning behaviour in combination with other materials has to be tested separately.

This test report does not replace the required „Verwendbarkeitsnachweis“. It is only used for issuing the “Verwendbarkeitsnachweis”.

Frankfurt, the 26th February 2021



H. Anders
Tester in Charge



P. Scheinkönig
Prüfstellenleiter Bau-PVO



This Test report is valid until 24.02.2026.

The results of the tests relate only to the behaviour of the test specimen which is designated on the top.

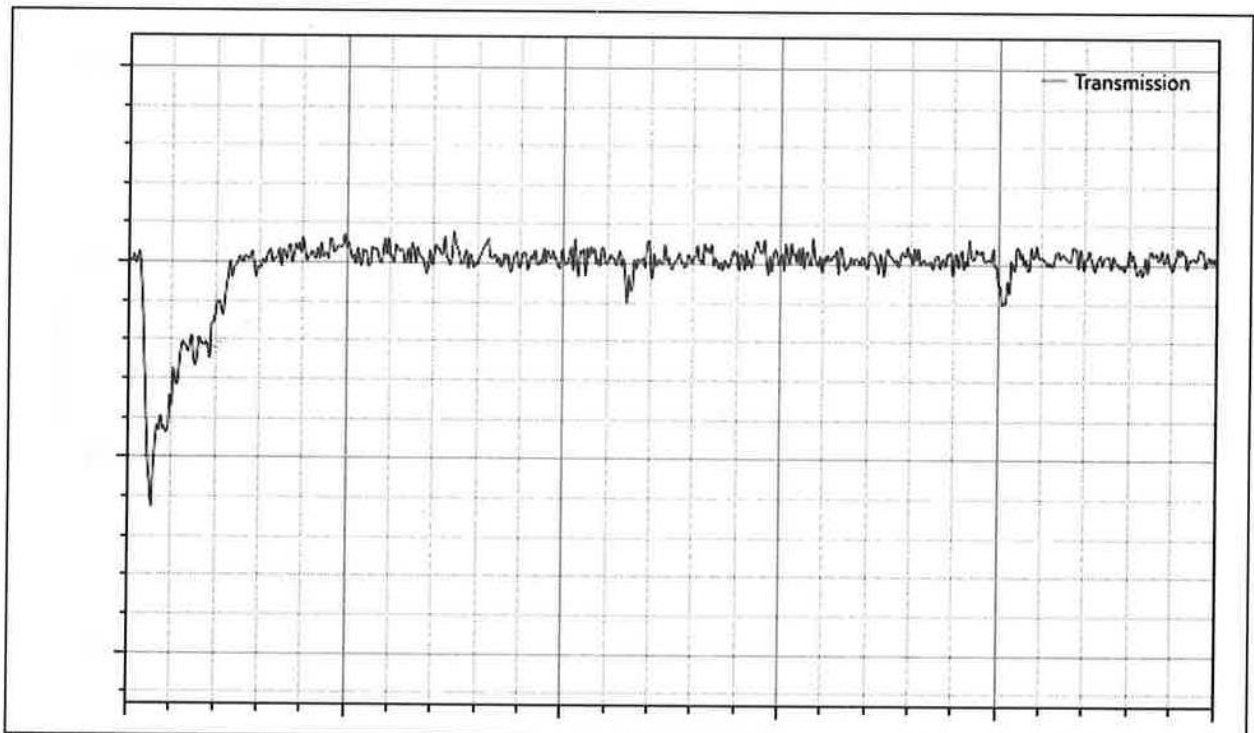
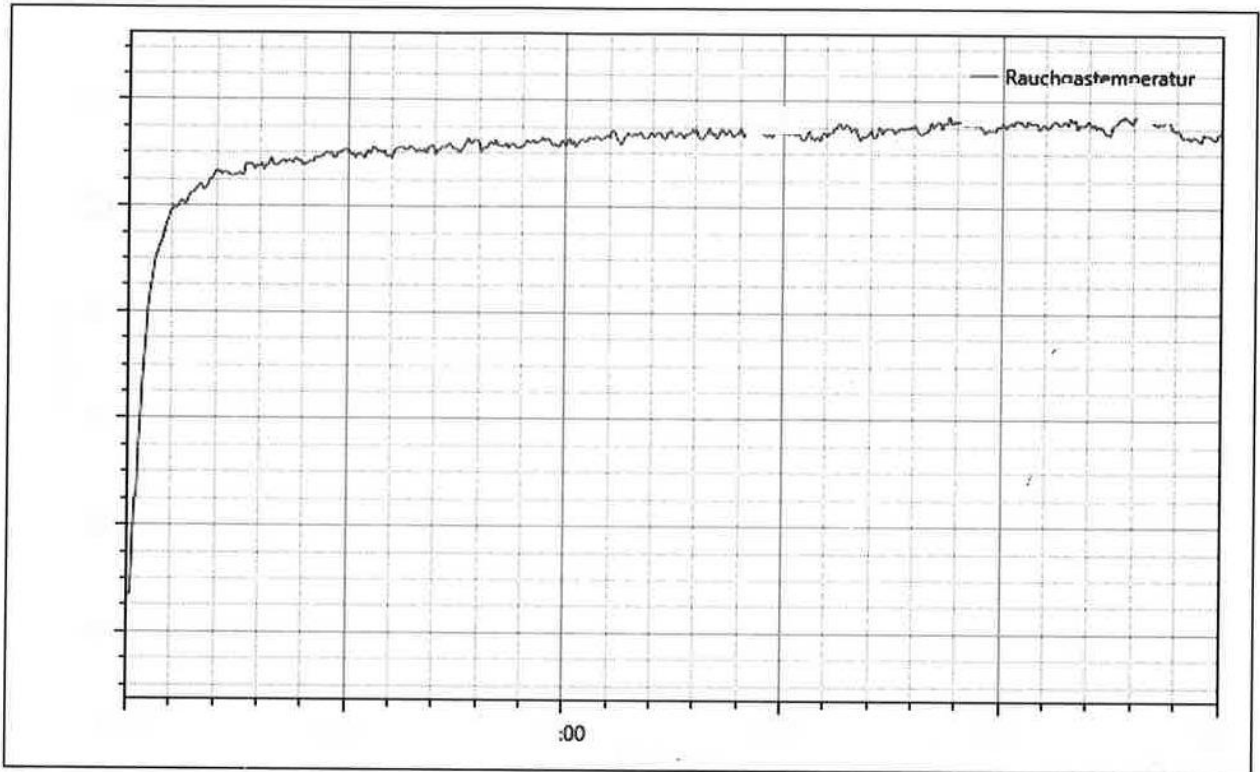
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This test report is a translation of the German version 200863 (issued 28.09.2020). In case of doubt only the German version is valid

This test report contains 8 pages and 2 annexes.

Annex 1 to the Test report No. 210066 issued 26.02.2021_

Sample A:



Annex 2 to the Test report No. 210066 issued 26.02.2021_

Sample B:

