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Applicant: Igepa Group

Address: Igepa Group GmbH & Co. KG

Sachsenfeld 4, D20097 Hamburg, Germany

The following merchandise was (were) submitted and identified by the client as:

Name of Product :

PVC COATED MESH

Test Model:

Color:

1

Model May Cover:

Sample Received:

White Jul. 15, 2011

Test Period :

Jul. 15, 2011 - Jul. 18, 2011

Test Request:

As the Client required, to do the flammability requirements of the sample

according to DIN 4102 B1 (1998)

Test Method:

DIN 4102-1 (May 1998) Fire behavior of building materials and elements Part 1:

Classification of building materials, Requirements and testing

Conclusion:

The tested sample meets the low flammability requirements of class B1 of

building materials under DIN 4102-1 (May 1998).

Issued by:

TÜV NORD GPSC Manager



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TEST RESULTS:

I. Test conducted

This test was conducted as per DIN 4102-15:1990, DIN 4102-16:1998 and DIN 4102-1:1998 Clause 6.2. Classification in according to DIN 4102-1 (May 1998) Clause 6.1-Class B1 materials

II. Sample details

| General description | Polyester |
|---------------------|-----------|
| Color / Density | White |
| Size of sample | |

Conditioning

Prior to testing, the sample was conditioned at least 14 days to constant mass at a temperature of 23 \pm 2 °C, and a relative humidity of 50 \pm 6 %.

III. Test results

1) "Brandschacht" Test according to DIN 4102-15 &16

Orientation: Product direction, Exposed surface: Face of the sample

| | Results of "Brandschack | nt" Test (| part 1) | | | | |
|------|---|------------|---------------------|--------|-------|---|--|
| Line | | Unit | Test assemblies No. | | | | |
| No. | | | Α | В | С | D | |
| 1 | Specimen fixings according to DIN 4102 part 15, table | 1 | 1 | | | | |
| 2 | Max. flame height above lower sample edge**; | cm | 50 | | | | |
| 3 | Time 1) | min:s | 2:23 | 316 | | | |
| | Melting/burning through | | 1 | | | | |
| 4 | Time 1) | min:s | 0:21 | | | | |
| | Back of specimen | * | | RA III | | | |
| 5 | Flaming/glowing, Time 1) | min:s | 1 | 3 | | | |
| 6 | Discolouring, Time 1) | min:s | 0:07 | | 1997 | | |
| | Burning droplets | | No | | 77 | | |
| 7 | Begin 1) | min:s | . 1 | | N. E. | | |
| - | Amount | | 7 | | | | |
| 8 | Specimen material falling off in separate droplets | | 1 | AL I | | | |
| 9 | Specimen material falling off continuously | | 1 | | | | |



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| Line | | Unit | Test assemblies No. | | | | | |
|------|--|---|---------------------|---------|-------|----|--|--|
| No. | | | A | В | С | D | | |
| | Burning parts | | | | | | | |
| 10 | Begin 1) | min:s | 1:14 | | Mall | | | |
| 11 | Parts of sample falling off separately | | √ | 0 3 1 2 | | 9 | | |
| 12 | Parts of sample falling off continuously | | 1 | | | | | |
| 13 | Duration of continued combustion on mesh base (max.) | min:s | 2:13 | | | | | |
| | Burner flame impairment by dripping/falling material | | No | - | | | | |
| 14 | Time 1) | min:s | 1 | | | | | |
| | Premature ending of test | 1 | No | | | | | |
| 15 | End of burning at specimen 1) | min:s | 1 | | | 18 | | |
| 16 | Time when test terminated (if applicable) 1) | min:s | 1 | | 100 | (h | | |
| | Burning after end of test | | No | | | | | |
| 17 | Duration | min:s | 1 | | | | | |
| 18 | Number of specimens | | 1 | . 4 | 7 8 1 | | | |
| 19 | Front of specimen | | 1 | | / 300 | | | |
| 20 | Back of specimen | | 1 | A A | | | | |
| 21 | Height of flame | cm | . 1 | | | | | |
| | Glowing after end of test | ME. | No | | | | | |
| 22 | Duration | min:s | 1 . | | | | | |
| 23 | Number of specimens | 0.5 | 1 | | -11 | | | |
| 24 | Front of specimen | | 1 | | H | | | |
| 25 | Back of specimen | | 1 | | | | | |
| 26 | Top half of specimen . | *************************************** | 1. | | | | | |
| 27 | Bottom half of specimen | | 1 | 040 | | | | |

******* To be continued *******





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| | Results of "Brand | dschacht" Test | (part | 3) | | 1 | | | |
|----------|-------------------------------|----------------|---------------------|----|---|----|---|--|--|
| Line No. | | Unit | Test assemblies No. | | | | | | |
| | | Jonit | A / | | В | С | D | | |
| | Residual length | | | | | | | | |
| 00 | Single results | | 48 | 54 | | | | | |
| 28 | | cm | 48 | 53 | | | | | |
| 29 | Average of the single results | cm | 51 | | | | | | |
| | Smoke temperature | | 1 | | | 10 | | | |
| 30 | Max. of average | °C | 104 | | | | | | |
| 31 | Time 1) | min:s | 3.45 | | | | | | |

Note: 1) time from start of testing

2) Normal Flammability Test according to DIN 4102-1 Clause 6.2

Flame application: bottom edge ignition

| 1 | 2 | 3 | 4 | 5 |
|---------------------------------------|---------------|-------------------------|--------------------------------------|---|
| No | No | No | No | No |
| 15 | 15 | 16 | 15 | 16 |
| 7 | 6 | 6 | 7 | 6 |
| 16 | 14 | 15 | 16 | 15 |
| 1 | 1 | 1 | 1 | 1 |
| No | No · | No : | No | No |
| noke developments (visual impression) | | | | |
| | 15 7 16 | No No 15 15 7 6 16 14 / | No No No No 15 16 7 6 6 16 14 15 / / | No No No No 15 15 16 15 7 6 6 7 16 14 15 16 / / / / No No No No |

All timings are from start of testing

******* To be continued *******





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Comments:

DIN 4102-B2

Criteria for classification for Class B1 (DIN 4102-1 Clause 6.1.2)

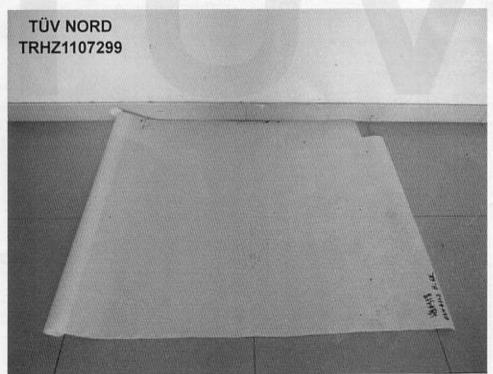
All materials, except flooring, may be classed as B1 materials if they met,

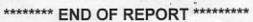
- a) Pass DIN 4102-16 "brandschacht" test if
 - 1) The mean value for the residual length of each specimen is at least 15 cm, and no individual values are lower than 0 cm:
 - The mean effluent temperature does not exceed 200°C in any test;
 - 3) The requirement for the residual length of each specimen is met even where there is afterflame, afterglow, or smouldering.
- b) Pass DIN 4102-1 Clause 6.2.3 Ignitability Test if, For each specimen, flaming doesn't reach the gage mark within 20s after flame application.

Statements:

This test report does not replace any mandatory certification of the product that may be required. The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire and smoke hazard of the product in use.

SAMPLE PHOTO









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