

# TEST-CERTIFICATE

**No. 230005314-2**

English version

issued 06. February 2006

**Sponsor:**

Avery Dennison Mat's BV  
Rijndijk 86

2394 AJ Hazerswoude / Niederlande

|                             |                                       |
|-----------------------------|---------------------------------------|
| <b>Date of application:</b> | 30. November 2005                     |
| <b>Date of sampling:</b>    | Samples were send in by the sponsor   |
| <b>Samples delivered on</b> | 29. November 2005                     |
| <b>Date of testing:</b>     | 18. January 2006 and 19. January 2006 |

**Order**

Testing according to DIN 4102-1 (May 1998) class B1

**Description / Name of tested product**

Self-adhesive foils „Avery® 800 Premium Cast“ used for signage and advertising sheets

**Applied test procedure**

DIN 4102 part 1 (May 1998)

This test certificate does not replace the attestation of use according to the German building regulations if necessary. It can be used for the application of such attestation of use.

**Remark:** This test certificate is a translation of the original test certificate 230005314-2 issued 06. February 2006 in German language and is only allowed to use together with the original test certificate.

This test certificate is valid until 05. February 2011.  
The test results only relate to the above named product.  
Any change in form or content to a test certificate can only be made by the approval of MPA NRW.  
This test certificate consists of 8 pages and 1 appendix.

**Name of tested product:** „Avery® 800 Premium Cast“

**Description of samples**

PVC foil with a self-adhesive coating on one side based on acrylic resin; the self-adhesive coating is covered by a one side coated, bleached kraft paper.

Thickness of the PVC foil: 50 µm

Thickness of the PVC foil with the self-adhesive coating: 75 µm

The foils can have different colours.

(Information as provided by the sponsor)

Colour of the tested self-adhesive foils:

- a) red, name of the foil „Avery® 837 Premium Cast Bright Red“
- b) yellow, name of the foil „Avery® 807 Premium Cast Primerose Yellow“
- c) blue, name of the foil „Avery® 824 Premium Cast Cobalt Blue“

Table 1: Characteristic values of the tested materials

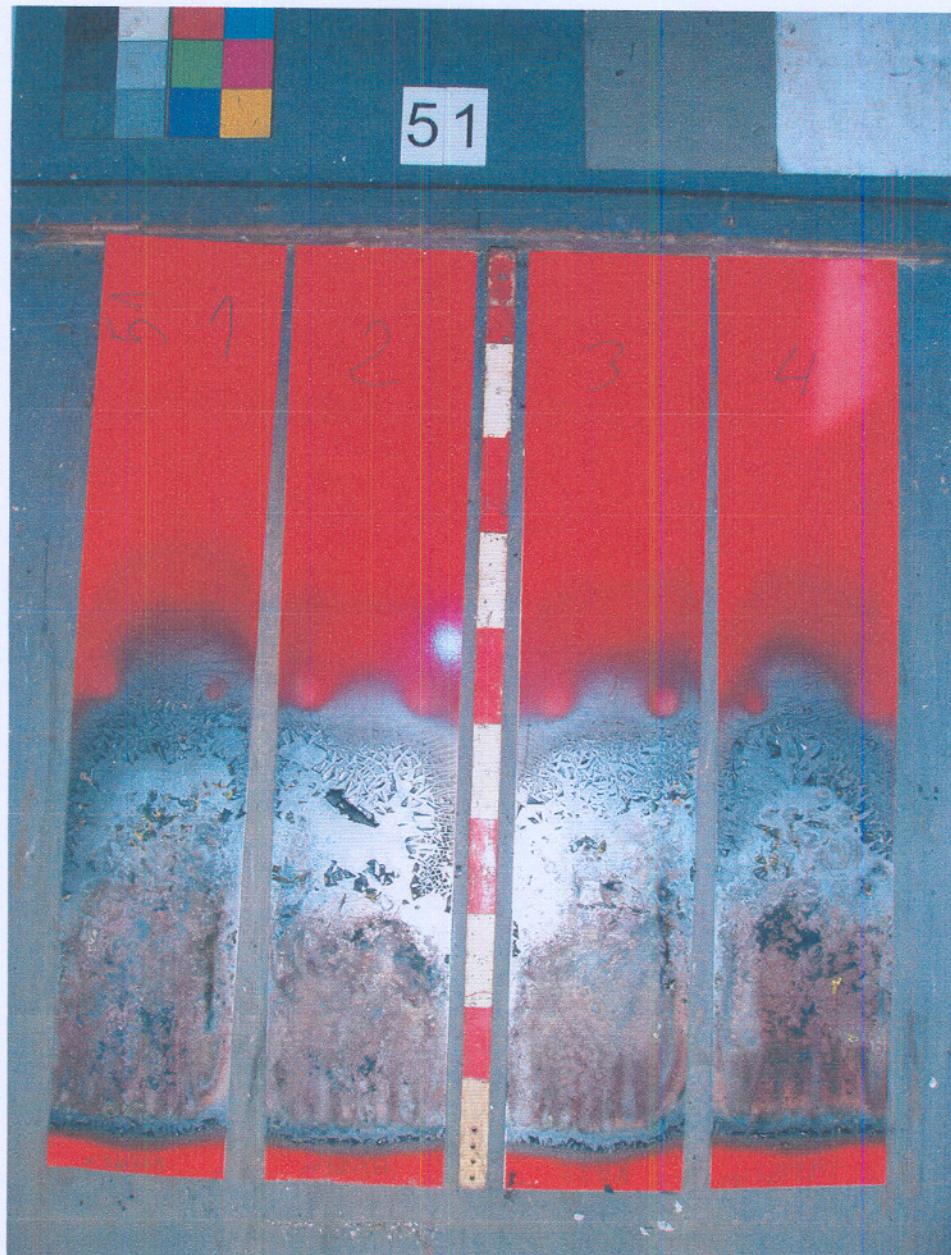
|                                                                               |                   | minimum<br>value | arithmetical<br>value | maximum<br>value |
|-------------------------------------------------------------------------------|-------------------|------------------|-----------------------|------------------|
| Thickness of the self-adhesive foil without the kraft paper covering          | mm                | --               | 0,08                  | --               |
| Mass per unit area of the self-adhesive foil without the kraft paper covering | g/m <sup>2</sup>  | --               | 98                    | --               |
| Density                                                                       | kg/m <sup>3</sup> | --               | --                    | --               |

**Special notes:** None

| Results of the Brandschacht test (part 1) |                                                                                                          |                               |             |           |  |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------|-------------|-----------|--|
| row-no.                                   | Colour of the samples:                                                                                   | measurements<br>test specimen |             |           |  |
|                                           |                                                                                                          | red<br>A                      | yellow<br>B | blue<br>C |  |
| 1                                         | <u>No. of test specimen arrangement according to DIN 4102, part 15, table 1</u>                          | 7                             | 7           | 7         |  |
| 2                                         | <u>Max. flame height above bottom edge</u>                                                               | 60                            | 60          | 60        |  |
|                                           | Time <sup>1)</sup> min : s                                                                               | 1:30                          | 1:00        | 1:00      |  |
| 4                                         | <u>Melt through / burn through</u><br>Time <sup>1)</sup> min : s                                         | --                            | --          | --        |  |
| 5                                         | <u>Observations on the backside of the specimens</u><br>Flames/smouldering<br>Time <sup>1)</sup> min : s | --                            | --          | --        |  |
| 6                                         | Discolouration<br>Time <sup>1)</sup> min : s                                                             | 10:00                         | 10:00       | 10:00     |  |
| 7                                         | <u>Burning droplets</u><br>Start <sup>1)</sup> min : s                                                   | --                            | --          | --        |  |
| 8                                         | <u>Extent</u><br>sporadic burning droplets                                                               | --                            | --          | --        |  |
| 9                                         | continually falling particles                                                                            | --                            | --          | --        |  |
| 10                                        | <u>Falling particles which burns</u><br>Start <sup>1)</sup> min : s                                      | 1:25                          | 3:20        | 2:12      |  |
| 11                                        | sporadic falling parts                                                                                   | x                             | x           | x         |  |
| 12                                        | continually falling particles                                                                            | --                            | --          | --        |  |
| 13                                        | Duration of the burning on the screen bottom (max.)<br>min : s                                           | 0:11                          | 0:04        | 0:19      |  |
| 14                                        | <u>Interference of the burner flame by dripping /falling particles</u><br>Time <sup>1)</sup> min : s     | --                            | --          | --        |  |
| 15                                        | <u>Early termination of the test</u><br>End of burning at the specimen <sup>1)</sup> min : s             | --                            | --          | --        |  |
| 16                                        | Time of early cancellation of the test <sup>1)</sup> min : s                                             | --                            | --          | --        |  |

<sup>1)</sup> Time counting from the start of the test





Picture 1: Appearance of specimen A after the test

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# **Results of the B2-testing according to DIN 4102-01**

(Tests with flaming the edge)

Protection of edges: none

Point of flame attack: lower edge, front side, flaming of the red self-adhesive foil on steel sheet

| Specimen No.                                                    | 1     | 2  | 3  | 4  | 5  |
|-----------------------------------------------------------------|-------|----|----|----|----|
| ( Times stated from start of test )                             |       |    |    |    |    |
| Ignition (s)                                                    | --    | -- | 3  | -- | 2  |
| Flame passing the limit mark (s)                                | --    | -- | -- | -- | -- |
| Self extinguishment (s)                                         | --    | -- | 4  | -- | 3  |
| Max. height of the flame (cm)                                   | --    | -- | 1  | -- | 1  |
| Continuous burning after 20 s                                   | --    | -- | -- | -- | -- |
| Continuous smouldering after 20 s                               | --    | -- | -- | -- | -- |
| Extinguishment of flames / glowing after passing the limit mark | --    | -- | -- | -- | -- |
| Smoke development (visual observation)                          | small |    |    |    |    |
| Falling of burning particles / droplets time (s)                | --    | -- | -- | -- | -- |

Point of flame attack: lower edge, front side, flaming of the yellow self-adhesive foil on steel sheet

| Specimen No.                                                    | 1              | 2  | 3  | 4  | 5  |
|-----------------------------------------------------------------|----------------|----|----|----|----|
| ( Times stated from start of test )                             |                |    |    |    |    |
| Ignition (s)                                                    | --             | -- | -- | -- | -- |
| Flame passing the limit mark (s)                                | --             | -- | -- | -- | -- |
| Self extinguishment (s)                                         | --             | -- | -- | -- | -- |
| Max. height of the flame (cm)                                   | --             | -- | -- | -- | -- |
| Continuous burning after 20 s                                   | --             | -- | -- | -- | -- |
| Continuous smouldering after 20 s                               | --             | -- | -- | -- | -- |
| Extinguishment of flames / glowing after passing the limit mark | --             | -- | -- | -- | -- |
| Smoke development (visual observation)                          | not detectable |    |    |    |    |
| Falling of burning particles / droplets time (s)                | --             | -- | -- | -- | -- |

**Results of the B2-testing according to DIN 4102-01**

(Tests with flaming the edge)

Protection of edges: none

Point of flame attack: lower edge, front side, flaming of the blue self-adhesive foil on steel sheet

| Specimen No.                                                    | 1              | 2  | 3  | 4  | 5  |
|-----------------------------------------------------------------|----------------|----|----|----|----|
| ( Times stated from start of test )                             |                |    |    |    |    |
| Ignition (s)                                                    | --             | -- | -- | -- | -- |
| Flame passing the limit mark (s)                                | --             | -- | -- | -- | -- |
| Self extinguishment (s)                                         | --             | -- | -- | -- | -- |
| Max. height of the flame (cm)                                   | --             | -- | -- | -- | -- |
| Continuous burning after 20 s                                   | --             | -- | -- | -- | -- |
| Continuous smouldering after 20 s                               | --             | -- | -- | -- | -- |
| Extinguishment of flames / glowing after passing the limit mark | --             | -- | -- | -- | -- |
| Smoke development (visual observation)                          | not detectable |    |    |    |    |
| Falling of burning particles / droplets time (s)                | --             | -- | -- | -- | -- |

### Assessment

- The product described on page 2 fulfilled the requirements of building products according to Baustoffklasse B2. According to the results, the product as tested in the described arrangement also fulfil the requirements of building products according to Baustoffklasse B1. In consequence the product can be classified as Baustoffklasse B1 (schwerentflammbare Baustoffe) according to DIN 4102 part 1 (Mai 1998). This assessment is only valid, if the self-adhesive foils are glued on steel substrate. This assessment is also valid, if the surface of the self-adhesive foils will be printed. The material may not be weathered in the outside.

### Special remark

- This test certificate is valid till 05. February 2011. The period of validity can be extended on application.
- Since the material is used for signage and advertising sheets it is no building product according to §2 chapter 9 no. 1 MBO. An allgemeines bauaufsichtliches Prüfzeugnis of the test institute respectively an allgemeine bauaufsichtliche Zulassung of Deutsches Institut für Bautechnik, Berlin is not necessary.
- This test report is not valid, if the tested material is used as building product according to the German building regulations.

### Marking

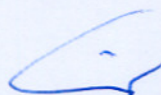
The above mentioned material has to be marked as following:

- "Only schwerentflammbar (class DIN 4102-B1) on steel substrate"

The marking shall be done on the material, on an enclosed paper or on the packaging or, if this would be to difficult, on the delivery-note or on an enclosure to the delivery-note.

This test certificate is solely valid in combination with the original test certificate issue in German language and dated of 06. February 2006. In case of doubt, the certificate issued in German language is valid.

Erwitte, 06. February 2006  
On behalf



Dipl.-Ing. Schreiner  
Official in charge



Date of issue of this English version: 06. February 2006

Max. flue gas-temperature = 114 °C  
 at [min : s] 09 : 59

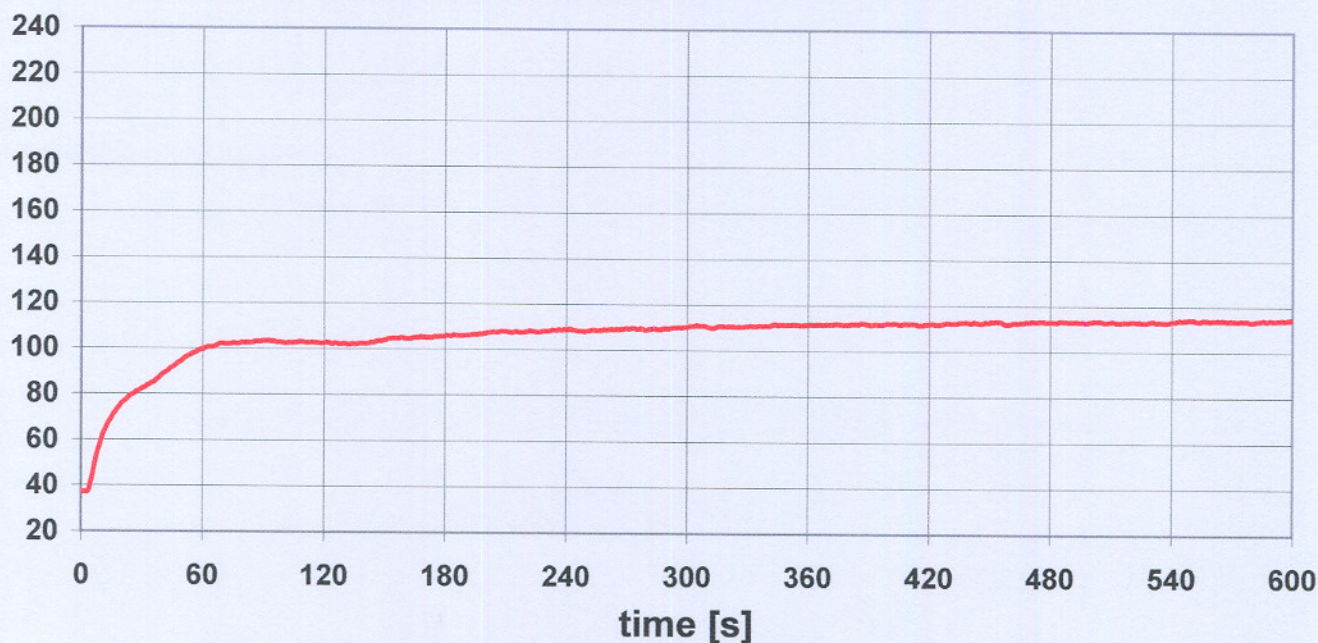
Smoke-development [% x min]: 13

Enclosure 1 of test report

no. 230005314-2 of 06. February 2006

T [°C]

### Average flue gas-temperature



RD [%]

### Smoke-development

