



**Titel:** Formaldehyde emission EN-717-2

**Rapportcode:** 7.471

**Datum:** 2 November 2007

SHR

“Het Cambium”

Nieuwe Kanaal 9b

PO Box 497

6700 AL Wageningen

Tel: + 31 317 467366

Fax: + 31 317 467399

E-mail: [b.tjeerdsma@shr.nl](mailto:b.tjeerdsma@shr.nl)

This report has 6 numbered pages. It is the property of the principal, who has the right to publish the complete report. Partial publication, even by the principal, is only allowed after written approval of SHR.

Principal: Fiberplast B.V.  
P.O. Box 585  
9200 AM DRACHTEN

Appendices: -

Project number: 7.471

Authors:

A handwritten signature in blue ink, appearing to read 'B.F. Tjeerdsma'.

B.F. Tjeerdsma, MSc.  
Project manager

A handwritten signature in black ink, appearing to read 'M.E. van der Zee'.

M.E. van der Zee, MSc.

Entries: Formaldehyde emission, EN-717-2

**Commissioner:** Fiberplast BV

## 1 Introduction

- 1.1 Commission Formaldehyde emission, determined according to EN 717-2  
1.2 Date of commission October 8, 2007  
1.3 Project number 7.471

## 2 Materials and methods

- 2.1 Tested product
- |                  |   |
|------------------|---|
| Type             | WPC decking Envirodeck™ HB (light brown)r             |
| Thickness        | 24.3 mm   |
| Density          | 720 kg/m <sup>3</sup> (ignoring the hollow profiling) |
| Moisture content | 1.4%  |
- 2.2 Producer
- |                    |                       |
|--------------------|-----------------------|
| Name               | Known by commissioner |
| Date of production | Known by commissioner |
| Production number  | Known by commissioner |
- 2.3 Sampling
- |                   |                          |
|-------------------|--------------------------|
| Date              | Known by commissioner    |
| By                | Ir. B.F. Tjeerdsma (SHR) |
| Number of samples | 2 (20b and 20c)          |
| Sample size       | 70 cm decking            |
- 2.4 Test method
- |                              |   |
|------------------------------|---|
| NEN-EN 717-2                 | Gas analysis method   |
| Deviation from the standard: | The cross cut sides of the samples for analyses were sealed, the hollow profile was left uncovered. |

## 3 Results

Formaldehyde emission [mg/m<sup>2</sup>h]:

Emission	7471-20b	7471 20c
Date of emission test	Oktober 23, 2007	Oktober 23, 2007
1 <sup>st</sup> hour	0*	0*
2 <sup>nd</sup> hour	0*	0*
3 <sup>rd</sup> hour	0*	0*
4 <sup>th</sup> hour	0*	0*
Average per sample	0	0
Total average	<b>0</b>	

\* below detection level

#### 4 Conclusions

Classification according to

EN 13986	E1
EN 1084	E1

#### Literature

NEN-EN 717-2:1995/C1:2002I; Wood-based panels - Determination of formaldehyde release - Part 2:

Formaldehyde release by the gas analysis method.

NEN-EN 1084:1995 en; Plywood - Formaldehyde release classes determined by the gas analysis method.

NEN-EN 13986:2004 en; Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking.

Requirements for classification:

E1:	Emission $\leq 3,5 \text{ mg/m}^2\text{h}$	(NEN-EN 1084 and NEN-EN 13986)
E2:	$3,5 \text{ mg/m}^2\text{h} < \text{Emission} \leq 8 \text{ mg/m}^2\text{h}$	(NEN-EN 1084 and NEN-EN 13986)
E3	Emission $> 8 \text{ mg/m}^2\text{h}$	(NEN-EN 1084)

**Commissioner:****1 Introduction**

- 1.1 Commission Formaldehyde-emission, determined according to EN 717-2  
1.2 Date of commission  
1.3 Project number

**2 Materials and methods**

- 2.1 Tested product  
Type WPC Decking, Envirodeck™ HA (dark brown)  
Thickness 23.4 mm  
Density 760 kg/m<sup>3</sup> (ignoring the hollow profiling)  
Moisture content 1.1%
- 2.2 Producer  
Name Known by commissioner  
Date of production Known by commissioner  
Production number Known by commissioner
- 2.3 Sampling  
Date Known by commissioner  
By Ir. B.F. Tjeerdsma (SHR)  
Number of samples 2 (13a and 13b)  
Sample size 70 cm decking
- 2.4 Test method  
NEN-EN 717-2 Gas analysis method  
Deviation from the standard: The cross cut sides of the samples for analyses were sealed, the hollow profile was left uncovered.

**3 Results**Formaldehyde emission [mg/m<sup>2</sup>h]:

Emission	7471-13a	7471 13b
Date of emission test	Oktober 24, 2007	Oktober 23, 2007
1 <sup>st</sup> hour	0*	0*
2 <sup>nd</sup> hour	0*	0*
3 <sup>rd</sup> hour	0*	0*
4 <sup>th</sup> hour	0*	0*
Average per sample	0	0
Total average	0	

\* below detection level

#### 4 Conclusions

Classification according to

EN 13986	E1
EN 1084	E1

#### Literature

NEN-EN 717-2:1995/C1:2002I; Wood-based panels - Determination of formaldehyde release - Part 2: Formaldehyde release by the gas analysis method.

NEN-EN 1084:1995 en; Plywood - Formaldehyde release classes determined by the gas analysis method.

NEN-EN 13986:2004 en; Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking.

Requirements for classification:

E1:	Emission $\leq 3,5 \text{ mg/m}^2\text{h}$	(NEN-EN 1084 and NEN-EN 13986)
E2:	$3,5 \text{ mg/m}^2\text{h} < \text{Emission} \leq 8 \text{ mg/m}^2\text{h}$	(NEN-EN 1084 and NEN-EN 13986)
E3:	Emission $> 8 \text{ mg/m}^2\text{h}$	(NEN-EN 1084)