

Reaction to fire classification report Nr 12080E

Owner of the classification report

BAYER SHEET EUROPE NV
WAKKENSESTEENWEG 47
B-8700 TIELT
BELGIUM

Introduction

This classification report defines the classification assigned to the products '**Vivak UV, Vivak, Bayloy 50 UV and Bayloy 50**' in accordance with the procedures given in the standard EN 13501-1: 2002: Fire classification of construction products and building elements - Part 1: classification using data from reaction to fire tests.

This classification report consists of 7 pages

1. DETAILS OF CLASSIFIED PRODUCT

a) Nature and end use application

The products 'Vivak UV, Vivak, Bayloy 50 UV and Bayloy 50' are defined as 'PETG sheets'.

Their classification is valid for the following end use application(s):

'Internal and external use as wall covering with protection of the cut edges, without joints and with a void'.

b) Description of the tested sheets

Vivak UV clear 2099

The tested material consists of a transparent, homogeneous PETG sheet with an UV protection layer on each side. Each protection layer contains an UV absorber.

	Nominal values	
Thickness (mm)	2	8
Average volumic mass (kg/m ³)	1270	

Vivak clear 099

The tested material consists of a transparent, homogeneous PETG sheet. The product is identical to the product 'Vivak UV clear 2099' but without the UV protection layer and absorber.

	Nominal values	
Thickness (mm)	8	
Average volumic mass (kg/m ³)	1270	

Bayloy 50 Grey

The tested material consists of a homogeneous PETG sheet which has got an opaque grey colour. The product is identical to the product 'Vivak clear 099'.

	Nominal values	
Thickness (mm)	4	
Average volumic mass (kg/m ³)	1270	

Bayloy 50 UV Black

The tested material consists of a homogeneous PETG sheet with an UV protection layer on each side. Each protection layer contains an UV absorber. The sheet has been coloured black. The product is identical to the product 'Vivak clear 2099'.

	Nominal values	
Thickness (mm)	6	
Average volumic mass (kg/m ³)	1270	

Bayloy 50 UV White

The tested material consists of a homogeneous PETG sheet with an UV protection layer on each side. Each protection layer contains an UV absorber. The sheet has been coloured white. The product is identical to the product 'Vivak UV clear 2099'.

	Nominal values
Thickness (mm)	6
Average volumic mass (kg/m ³)	1270

Vivak UV Grey

The tested material consists of a homogeneous PETG sheet with an UV protection layer on each side. Each protection layer contains an UV absorber. The sheet has been coloured transparent grey. The product is identical to the product 'Vivak UV clear 2099'.

	Nominal values
Thickness (mm)	6
Average volumic mass (kg/m ³)	1270

2. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

a) Test reports

Name of the laboratory	Name of the sponsor	Test report ref. Nr.	Test method, EXAP
WFRGENT N.V. Ghent, Belgium	BAYER SHEET EUROPE NV	11745A, 11804A, 11804C, 11843, 12080A, 12080B, 12080C	EN 13823 (February 2002)
WFRGENT N.V. Ghent, Belgium	BAYER SHEET EUROPE NV	11745B, 11804B, 12080D	EN ISO 11925-2 (February 2002)
WFRGENT N.V. Ghent, Belgium	BAYER SHEET EUROPE NV	11745D, 12080F	EXAP report in accordance with CEN TC127 N2157

b) Test results

Test method	Parameter	Number of tests	Results		Criteria for Class B-s1,d0	
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters
EN ISO 11925-2 (1) 30s flame application: <u>Surface exposure</u> - front side	$F_s \leq 150\text{mm}$ Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
EN ISO 11925-2 (2) 30s flame application: <u>Surface exposure</u> - front side	$F_s \leq 150\text{mm}$ Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
EN ISO 11925-2 (3) 30s flame application: <u>Surface exposure</u> - front side	$F_s \leq 150\text{mm}$ Ignition filter paper	18	(-) (-)	Yes No	(-) (-)	Yes No
EN 13823 (4)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	3	37 (-) (-) 1,7 6 34 (-) (-)	(-) (-) Yes (-) (-) (-) Yes No	≤ 120 ≤ 120 (-) $\leq 7,5$ ≤ 30 ≤ 50 (-) (-)	(-) (-) Yes (-) (-) (-) Yes No
EN 13823 (5)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	3	3 (-) (-) 0,2 1 22 (-) (-)	(-) (-) Yes (-) (-) (-) Yes No	≤ 120 ≤ 120 (-) $\leq 7,5$ ≤ 30 ≤ 50 (-) (-)	(-) (-) Yes (-) (-) (-) Yes No

(-) Not applicable

(1) Based on the results obtained in test report Nr. 11745B – Vivak UV clear 2099 (2mm)

(2) Based on the results obtained in test report Nr. 11804B - Vivak UV clear 2099 (8mm)

(3) Based on the results obtained in test report Nr. 12080D – Bayloy 50 UV black and white and Vivak grey (6mm)

(4) Based on the results obtained in test report Nr. 11804A - Vivak UV clear 2099 (8mm)

(5) Based on the results obtained in test report Nr. 11745A - Vivak UV clear 2099 (2mm)

Test method	Parameter	Number of tests	Results		Criteria for Class B-s2,d0		
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters	
EN 13823 (6)	FIGRA _{0,2 MJ} (W/s)	3	30	(-)	≤ 120	(-)	
	FIGRA _{0,4 MJ} (W/s)		(-)	(-)	≤ 120	(-)	
	LFS _{<edge}		(-)	Yes	(-)	Yes	
	THR _{600s} (MJ)		1,2	(-)	≤ 7,5	(-)	
	SMOGRA (m ² /s ²)		8	(-)	≤ 180	(-)	
	TSP _{600s} (m ²)		38	(-)	≤ 200	(-)	
	Flaming droplets/particles						
	f<10s		(-)	Yes	(-)	Yes	
	f>10s		(-)	No	(-)	No	
EN 13823 (7)	FIGRA _{0,2 MJ} (W/s)	3	16	(-)	≤ 120	(-)	
	FIGRA _{0,4 MJ} (W/s)		(-)	(-)	≤ 120	(-)	
	LFS _{<edge}		(-)	Yes	(-)	Yes	
	THR _{600s} (MJ)		1,0	(-)	≤ 7,5	(-)	
	SMOGRA (m ² /s ²)		5	(-)	≤ 180	(-)	
	TSP _{600s} (m ²)		30	(-)	≤ 200	(-)	
	Flaming droplets/particles						
	f<10s		(-)	Yes	(-)	Yes	
	f>10s		(-)	No	(-)	No	
EN 13823 (8)	FIGRA _{0,2 MJ} (W/s)	3	72	(-)	≤ 120	(-)	
	FIGRA _{0,4 MJ} (W/s)		(-)	(-)	≤ 120	(-)	
	LFS _{<edge}		(-)	Yes	(-)	Yes	
	THR _{600s} (MJ)		2,3	(-)	≤ 7,5	(-)	
	SMOGRA (m ² /s ²)		7	(-)	≤ 180	(-)	
	TSP _{600s} (m ²)		52	(-)	≤ 200	(-)	
	Flaming droplets/particles						
	f<10s		(-)	Yes	(-)	Yes	
	f>10s		(-)	No	(-)	No	
EN 13823 (9)	FIGRA _{0,2 MJ} (W/s)	3	55	(-)	≤ 120	(-)	
	FIGRA _{0,4 MJ} (W/s)		(-)	(-)	≤ 120	(-)	
	LFS _{<edge}		(-)	Yes	(-)	Yes	
	THR _{600s} (MJ)		1,6	(-)	≤ 7,5	(-)	
	SMOGRA (m ² /s ²)		5	(-)	≤ 180	(-)	
	TSP _{600s} (m ²)		35	(-)	≤ 200	(-)	
	Flaming droplets/particles						
	f<10s		(-)	Yes	(-)	Yes	
	f>10s		(-)	No	(-)	No	

(-) Not applicable

(6) Based on the results obtained in test report Nr. 11843 – Vivak clear 099 (8mm)

(7) Based on the results obtained in test report Nr. 11745B – Vivak UV clear 2099 (2mm)

(8) Based on the results obtained in test report Nr. 12080A – Bayloy 50 UV Black (6mm)

(9) Based on the results obtained in test report Nr. 12080B – Bayloy 50 UV white (6mm)

Test method	Parameter	Number of tests	Results		Criteria for Class B-s1,d0		
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters	
EN 13823 (10)	FIGRA _{0,2 MJ} (W/s)	3	38	(-)	≤ 120	(-)	
	FIGRA _{0,4 MJ} (W/s)		(-)	(-)	≤ 120	(-)	
	LFS _{<edge}		(-)	Yes	(-)	Yes	
	THR _{600s} (MJ)		1,5	(-)	≤ 7,5	(-)	
	SMOGRA (m ² /s ²)		12	(-)	≤ 30	(-)	
	TSP _{600s} (m ²)		26	(-)	≤ 50	(-)	
	Flaming droplets/particles						
	f<10s		(-)	Yes	(-)	Yes	
	f>10s		(-)	No	(-)	No	

(-) Not applicable

(10) Based on the results obtained in test report Nr. 11745A - Vivak UV Grey (6mm)

3. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

a) Reference and direct field of application

This classification has been carried out in accordance with clause 10.6 of EN 13501-1: 2002.

b) Classification

The products '**Vivak UV, Vivak, Bayloy 50 UV and Bayloy 50**' in relation to their reaction to fire behavior are classified as:

Fire behavior	Smoke production	Flaming droplets
B	s2	d0

c) Field of application

This classification for the product as described in §1b, is valid for the following end use conditions :

- With a void.
- No fixing but with protection of the cut edges with a metal frame.
- No joints.

This classification is valid for the following product parameters:

Nominal thickness : 2 mm till 6 mm

Nominal density: 1270 kg/m³

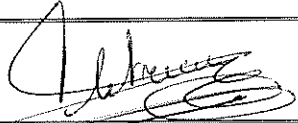

All colours

4. RESTRICTIONS

At the time the standard EN 13501-1 (February 2002) was published, no decision was made concerning the duration of validity of a classification report.

5. WARNING

This classification report does not represent type approval nor certification of the product.

Report	Name	Signature (*)	Date
Prepared by	Ing. Frans DUTRIEUE		04 MEI 2006
Reviewed by	Prof. Dr. Ir. Paul VANDEVELDE		04 MEI 2006
(*) For and on behalf of "WFRGENT N.V."			

EN 13501-1 B-C-D WG 2E*

This document is the original version of this classification report and is written in English.

This report may be used only literally and completely for publications. - For publications of certain texts, in which this report is mentioned, our permission must be obtained in advance.