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## **CLASSIFICATION**

# CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2007+A1:2009

Classification no. 2016-Efectis-R000630

Sponsor **Avery Dennison** 

Willem Einthovenstraat 11 2342 BH OEGSTGEEST THE NETHERLANDS

Product name MPI 1105 and MPI 1105 EA RS

Prepared by **Efectis Nederland BV** 

Notified body no. 1234

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### 1. INTRODUCTION

This classification report defines the classification assigned to MPI 1105 and MPI 1105 EA RS in accordance with the procedures given in EN 13501-1:2007+A1:2009.

### 2. DETAILS OF CLASSIFIED PRODUCT

### 2.1 GENERAL

The product, MPI 1105 and MPI 1105 EA RS, is defined as a vehicle wrapping film.

### 2.2 MANUFACTURER

Avery Dennison Graphics & Reflective Solutions P.O. Box 28 2300 AA LEIDEN THE NETHERLANDS

### 2.3 PRODUCT DESCRIPTION

According to the sponsor the product is from inside out composed of:

Film: 50 μm, gloss white cast vinyl

Colour: white

Adhesive: 30  $\mu m$ , permanent, acrylic based with grey tie coat and long term

removability properties

Backing paper: Two sided PE coated StaFlat<sup>™</sup> paper, 155 g/m<sup>2</sup>

See appendix 'Product data sheet' in the test reports for more detailed specifications.

The product has a total thickness of 50  $\mu$ m and a mass per unit area of approx. 120 g/m<sup>2</sup> (measured on the product).

## 3. REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

### 3.1 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	Avery Dennison Graphics & Reflective Solutions THE NETHERLANDS	2016-Efectis-R000628 2016-Efectis-R000629	EN ISO 11925-2:2010 EN 13823:2014



## 3.2 TEST RESULTS

Test method and test number	Parameter		Results	
		No. tests	Continuous parameter - mean (m)	Compliance with parameters
EN ISO 11925-2				
surface flame impingement	Fs ≤150 mm	- 6	25	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	- 6	17	-
	Ignition of filter paper		-	Compliant
EN 13823				
MPI 1105 EA RS	FIGRA <sub>0.2MJ</sub> [W/s]		24	-
	FIGRA <sub>0.4MJ</sub> [W/s]		0	-
	THR <sub>600s</sub> [MJ]		0.6	-
	LFS < edge		-	Compliant
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]	3	6.7	-
	TSP <sub>600s</sub> [m <sup>2</sup> ]		41	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant
MPI 1105	FIGRA <sub>0.2MJ</sub> [W/s]		33	-
	FIGRA <sub>0.4MJ</sub> [W/s]		0	-
	THR <sub>600s</sub> [MJ]	]	0.5	-
	LFS < edge	]	-	Compliant
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]	1	9.8	-
	TSP <sub>600s</sub> [m <sup>2</sup> ]	]	38	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant



### 3.3 CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products						
Classification criteria						
Class Test method(s)	В	С	D			
<b>EN ISO 11925-2</b> Exposure = 30 s	$F_s \le$ 150 mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.					
EN 13823	$\begin{array}{l} FIGRA_{0.2 \text{ MJ}} \leq 120 \text{ W/s} \\ LFS < edge \text{ of specimen} \\ THR_{600s} \leq 7.5 \text{ MJ} \end{array}$	FIGRA <sub>0.4 MJ</sub> $\leq$ 250 W/s LFS $<$ edge of specimen THR <sub>600s</sub> $\leq$ 15 MJ	FIGRA <sub>0.4 MJ</sub> ≤ 750 W/s			
Additional classification						
Smoke production	$s1 = SMOGRA \le 30 \text{ m}^2/\text{s}^2 \text{ and } TSP_{600s} \le 50 \text{ m}^2$ ; $s2 = SMOGRA \le 180 \text{ m}^2/\text{s}^2 \text{ and } TSP_{600s} \le 200 \text{ m}^2$ ; s3 = not  s1  or  s2					
Flaming Droplets/particles	<pre>d0 = no flaming droplets/ particles in EN 13823 within 600 s; d1 = no flaming droplets/ particles persisting longer than 10 s in         EN 13823 within 600 s; d2 = not d0 or d1.</pre>					

## 4. CLASSIFICATION AND FIELD OF APPLICATION

## 4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2007+ A1:2009.

### 4.2 CLASSIFICATION

The product, MPI 1105 and MPI 1105 EA RS, in relation to its reaction to fire behaviour is classified:

В

The additional classification in relation to smoke production is:

s1

The additional classification in relation to flaming droplets / particles is:

d0

Reaction to fire classification: B - s1, d0





### 4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

**Thickness** 

Film
 Adhesive
 50 μm
 30 μm

Surface density Approx. 120 g/m<sup>2</sup> (measured on the product)

Other properties Colour: white

This classification is valid for the following end use applications:

Substrate Non-combustible

(class A1/A2 according to EN 13238:2010)

Air gap Including air gap

Methods and means of fixing Using the adhesive of the product

Joints Vertical only

Other aspects of end use

conditions

Vehicle wrapping film

### 4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.

### 5. LIMITATIONS

This classification document does not represent type approval or certification of the product.

C.C.M. Steinhage B.Sc.

Project leader reaction to fire

A.J. Lock

Project leader reaction to fire