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## CLASSIFICATION

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

Classification no. 2017-Efectis-R000934

**Sponsor** Avery Dennison

**Graphics & Reflective Solutions** 

P.O. Box 28 2300 AA LEIDEN THE NETHERLANDS

Product name Avery Dennison® MPI 2000/2001 HOP

Prepared by Efectis Nederland BV

Notified body no. 1234

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#### 1. INTRODUCTION

This classification report defines the classification assigned to **Avery Dennison® MPI 2000/2001 HOP** in accordance with the procedures given in EN 13501-1:2007+A1:2009.

#### 2. DETAILS OF CLASSIFIED PRODUCT

#### 2.1 GENERAL

The product, **Avery Dennison® MPI 2000/2001 HOP**, is defined as a multi-purpose film products that will be used for all kind of applications.

## 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 composed of:

Face film: 80 μm, premium quality clear cast vinyl;

Backing paper: two sides polyethylene coated Kraft paper, 140 g/m<sup>2</sup>.

Two types:

MPI 2000: 30 μm, Permanent, clear acrylic based;
 MPI 2001: 20 μm, Removable, clear acrylic based.

The product has a total thickness of approx. 110  $\mu m$  respectively 100  $\mu m$  and a mass per unit area of approx. 150 g/m<sup>2</sup> (measured on the product).

See also Appendix 'Product data sheet' in the test reports.

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

## 3.1 APPLICABLE (PRODUCT) STANDARDS

EN ISO 11925-2:2010	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
EN 13823:2010+A1:2014	Reaction to fire tests for building products - Building products, excluding floorings exposed to the thermal attack by a single burning item
EN 13501-1:2007+A1:2009	Fire classification of construction products and building elements Part 1: Classification using data from reaction to fire tests





## 3.2 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	Avery Dennison THE NETHERLANDS	2017-Efectis-R000932 2017-Efectis-R000933	EN ISO 11925- 2:2010 EN 13823:2014

## 3.3 TEST RESULTS

	Parameter		No. tests	Results	
Test method and test number				Continuous parameter – mean (m)	Compliance with parameters
EN ISO 11925-2					
surface flame	Fs ≤150 mm		6	25	-
impingement	Ignition of filter paper			-	Compliant
Edge flame	Fs ≤150 mm		6	25	-
Impingement	Ignition of filter p	paper	O	-	Compliant
EN 13823					
MPI 2000	FIGRA <sub>0.2MJ</sub>	[W/s]		26	-
	FIGRA <sub>0.4MJ</sub>	[W/s]	3	0	-
	THR <sub>600s</sub>	[MJ]		0.8	-
	LFS < edge			-	Compliant
	SMOGRA	$[m^2/s^2]$		12.5	-
	TSP <sub>600s</sub>	[m <sup>2</sup> ]		41	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s			-	Compliant Compliant
MPI 2001	FIGRA <sub>0.2MJ</sub>	[W/s]		0	-
	FIGRA <sub>0.4MJ</sub>	[W/s]		0	-
	THR <sub>600s</sub> [MJ]			0.6	-
	LFS < edge		1	-	Compliant
	SMOGRA	$[m^2/s^2]$		12.5	-
	TSP <sub>600s</sub> [m <sup>2</sup> ]			39	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s			- -	Compliant Compliant



#### 3.4 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	FIGRA <sub>0.2 MJ</sub> ≤ 120 W/s LFS < edge of specimen THR <sub>600s</sub> ≤ 7.5 MJ		FIGRA <sub>0.4 MJ</sub> ≤ 250 W/s LFS < edge of specimen THR <sub>600s</sub> ≤ 15 MJ	FIGRA <sub>0.4 MJ</sub> ≤ 750 W/s
Additional classification				
Smoke production	<b>s1</b> = SMOGRA ≤ 30 m <sup>2</sup> /s <sup>2</sup> and TSP <sub>600s</sub> ≤ 50 m <sup>2</sup> ; <b>s2</b> = SMOGRA ≤ 180 m <sup>2</sup> /s <sup>2</sup> and TSP <sub>600s</sub> ≤ 200 m <sup>2</sup> ; <b>s3</b> = not s1 or s2			
Flaming Droplets/particles	<ul> <li>d0 = no flaming droplets/ particles in EN 13823 within 600 s;</li> <li>d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;</li> <li>d2 = not d0 or d1.</li> </ul>			

## 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, **Avery Dennison® MPI 2000/2001 HOP**, 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	80 μm 30 μm respectively 20 μm
Surface density	150 g/m <sup>2</sup>

This classification is valid for the following end use applications:

Substrate	Non-combustible (class A1 according to EN 13238:2010)
Air gap	Including air gap
Methods and means of fixing	Glued, using the products adhesive
Joints	Vertical only
Other aspects of end use conditions	Wall covering

## 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.

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