

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

Classification no.	2016-Efectis-R001311
Sponsor	Avery Dennison Willem Einthovenstraat 11 2342 BH OEGSTGEEST THE NETHERLANDS
Product name	Avery Dennison® MPI™3000/3020 HOP series
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	C. C. M. Steinhage B. Sc. A. J. Lock
Project number	ENL-16-000958
Date of issue	October 2016
Number of pages	6

1. INTRODUCTION

This classification report defines the classification assigned to **MPI Avery Dennison® MPI™ 3000/3020 HOP series** 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™ 3000/3020 HOP series**, is defined as a multi-purpose film product 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:

- MPI™3000 HOP series
 - Film: 95 µm gloss white high opacity
 - Adhesive:
 - MPI 3000 HOP: Permanent, clear, acrylic based
 - MPI 3001 HOP: Removable, clear, acrylic based
 - Backing paper: Clay coated kraft paper, 125 g/ m²
- MPI™3020 HOP series
 - Film : 95 µm matt white high opacity
 - Adhesive :
 - MPI 3020 HOP: Permanent, clear, acrylic based
 - MPI 3021 HOP: Removable, clear, acrylic based
 - Backing paper: Clay coated kraft paper, 125 g/ m²

The product has a thickness of approx. 95 µm and a mass per unit area of approx. 150 g/ m², (measured on the product).

See also "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 Graphics & Reflective Solutions THE NETHERLANDS	2016-Efectis-R001213 2016-Efectis-R001301	EN ISO 11925-2:2010 EN 13823:2014

3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN ISO 11925-2				
surface flame impingement	F _s ≤150 mm	6	20	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	F _s ≤150 mm	6	18	-
	Ignition of filter paper		-	Compliant
EN 13823				
MPI 3001	FIGRA _{0,2MJ} [W/ s]	3	94	-
	FIGRA _{0,4MJ} [W/ s]		0	-
	THR _{600s} [MJ]		0.7	-
	LFS < edge		-	Compliant
	SMOGRA [m ² / s ²]		26.1	-
	TSP _{600s} [m ²]		37	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
MPI 3000	FIGRA _{0,2MJ} [W/ s]	1	0	-
	FIGRA _{0,4MJ} [W/ s]		0	-
	THR _{600s} [MJ]		0.4	-
	LFS < edge		-	Compliant
	SMOGRA [m ² / s ²]		19.0	-
	TSP _{600s} [m ²]		54	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant
MPI 3020	FIGRA _{0,2MJ} [W/ s]	1	0	-
	FIGRA _{0,4MJ} [W/ s]		0	-
	THR _{600s} [MJ]		0.7	-
	LFS < edge		-	Compliant
	SMOGRA [m ² / s ²]		19.6	-
	TSP _{600s} [m ²]		60	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant
MPI 3021	FIGRA _{0,2MJ} [W/ s]	1	46	-
	FIGRA _{0,4MJ} [W/ s]		0	-
	THR _{600s} [MJ]		0.6	-
	LFS < edge		-	Compliant
	SMOGRA [m ² / s ²]		23.1	-
	TSP _{600s} [m ²]		61	-
	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	B	C	D
Test method(s)			
EN ISO 11925-2 Exposure = 30 s	$F_s \leq 150$ mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
EN 13823	$FIGRA_{0.2 MJ} \leq 120$ W/s LFS < edge of specimen $THR_{600s} \leq 7.5$ MJ	$FIGRA_{0.4 MJ} \leq 250$ W/s LFS < edge of specimen $THR_{600s} \leq 15$ MJ	$FIGRA_{0.4 MJ} \leq 750$ W/s
Additional classification			
Smoke production	s1 = $SMOGRA \leq 30$ m ² /s ² and $TSP_{600s} \leq 50$ m ² ; s2 = $SMOGRA \leq 180$ m ² /s ² and $TSP_{600s} \leq 200$ m ² ; s3 = not s1 or s2		
Flaming Droplets/ particles	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.		

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™3000/3020 HOP series**, in relation to its reaction to fire behaviour is classified:

B

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	95 μm
Surface density	Approx. 150 g/ m ²

This classification is valid for the following end use applications:

Substrate	Steel sheet, thickness approx. 1.2 mm (class A1/ A2 according to EN 13238:2010)
Air gap	Including an air gap
Methods and means of fixing	Glued, using the products adhesive
Joints	Vertical joints 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.



C.C.M. Steinhage B.Sc.
Project leader reaction to fire



A.J. Lock
Project leader reaction to fire