

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

Classification no.	2019-Efectis-R000680
Sponsor	Avery Dennison Willem Einthovenstraat 11 2342 BH OEGSTGEEST THE NETHERLANDS
Product name	<b>Avery Dennison® DOL 1400 Z Series</b>
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	C.C.M. Steinhage B.Sc. A.J. Lock
Project number	ENL-18-001256
Date of issue	April 2019
Number of pages	5

## 1. INTRODUCTION

---

This classification report defines the classification assigned **Avery Dennison® DOL 1400 Z 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® DOL 1400 Z Series**, is defined as a protective overlamine 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 composed of:

- Face film: 30 µm, premium quality clear cast vinyl;
- Adhesive: 20 µm, permanent, acrylic based;
- Backing paper: White bleached kraft paper, 130 g/m<sup>2</sup>.

The product has a total thickness of approx. 50 µm and a mass per unit area of approx. 65 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 Graphics & Reflective Solutions THE NETHERLANDS	2018-Efectis-R000678 2018-Efectis-R000679	EN ISO 11925-2:2010 EN 13823:2014

### 3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – maximum	Compliance with parameters
<b>EN ISO 11925-2</b>				
surface flame impingement	Fs ≤150 mm	6	25	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	15	-
	Ignition of filter paper		-	Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
<b>EN 13823</b>				
	FIGRA <sub>0.2MJ</sub> [W/s]	3	0	-
	FIGRA <sub>0.4MJ</sub> [W/s]		0	-
	THR <sub>600s</sub> [MJ]		0.3	-
	LFS < edge		-	Compliant
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		0	-
	TSP <sub>600s</sub> [m <sup>2</sup> ]		28	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant

### 3.4 CLASSIFICATION CRITERIA

<b>Fire classification of construction products and building elements</b> Excluding floorings and linear pipe thermal insulation products			
<b>Classification criteria</b>			
Class	<b>B</b>	<b>C</b>	<b>D</b>
Test method(s)			
<b>EN ISO 11925-2</b> Exposure = 30 s	F <sub>s</sub> ≤ 150 mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
<b>EN 13823</b>	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
<b>Additional classification</b>			
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	<b>d0</b> = no flaming droplets/ particles in EN 13823 within 600 s; <b>d1</b> = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s; <b>d2</b> = 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® DOL 1400 Z 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	
• Face film	30 µm
• Adhesive	20 µm
Surface density	Approx. 65 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	Glued, using the products adhesive
Joints	Vertically Only
Other aspects of end use conditions	Protective overlamine film

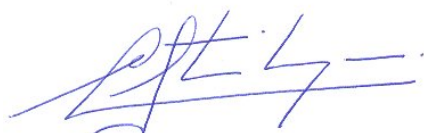
#### 4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

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