

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2018

Classification no.	2021-Efectis-R000015
Sponsor	Avery Dennison Graphics & Reflective Solutions P.O. Box 28 2300 AA LEIDEN THE NETHERLANDS
Product name	Mactac LF 8500 Series
Prepared by	Efectis Nederland BV
Notified body no.	1234
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1. INTRODUCTION

1.1 PRODUCT NAME

This classification report defines the classification assigned to **Mactac LF 8500 Series** in accordance with the procedures given in EN 13501-1:2007+A1:2009.

1.2 STANDARD REVISIONS

Due to standard revisions, there are four applicable test standards used for this classification. It concerns the following issues:

- The issues 2010/C1:2011 and respectively the 2020 version of the test standard EN ISO 11925-2;
- The issues 2010 and A1:2014 and respectively the 2020 version of the test standard EN 13823.

1.3 ASSESSMENT INFORMATION

Efectis compared the two versions of the EN ISO 11925-2 standard and concluded that the results for this product from the tests according to the EN ISO 11925-2:2010/C1:2011 standard are still valid according to the EN ISO 11925-2:2020 standard. Therefore, this report can be used for classification according to EN 13501-1:2018.

Efectis compared the two versions of the EN 13823 standard and concluded that the results for this product from the tests according to the EN 13823:2010+A1:2014 standard are still valid according to the EN 13823:2020 standard. Therefore, this report can be used for classification according to EN 13501-1:2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, **Mactac LF 8500 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:

- Film: 80 μm flexible, transparent, calendered vinyl
- Adhesive: 20 μm , permanent, acrylic based, formulation > 2020;
- Backing: one side coated bleached kraft paper, 95 g/m^2

The product has a total thickness of approx. 100 μm and a mass per unit area of approx. 107 g/m^2 (measured on the product).

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

3.1 APPLICABLE (PRODUCT) STANDARDS

EN ISO 11925-2:2010 /2020	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
EN 13823:2010+A1:2014 /2020	Reaction to fire tests for building products - Building products, excluding floorings exposed to the thermal attack by a single burning item
EN 13501-1:2018	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-R001107 2020-Efectis-R002578 2018-Efectis-R001108 2019-Efectis-R000700 2020-Efectis-R002579	EN ISO 11925-2:2010 EN ISO 11925-2:2020 EN 13823:2014 EN 13823:2014 EN 13823:2020

3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – maximum	Compliance with parameters
EN ISO 11925-2 Gloss/Matt (2018-Efectis-R001107)				
Surface flame impingement	Fs ≤150 mm	6	20	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	15	-
	Ignition of filter paper		-	Compliant
EN ISO 11925-2 DOL 2860 – glue variant (2020-Efectis-R002578)				
Surface flame impingement	Fs ≤150 mm	6	35	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	35	-
	Ignition of filter paper		-	Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
Gloss (2018-Efectis-R001108)	FIGRA _{0.2MJ} [W/s]	3	24	-
	FIGRA _{0.4MJ} [W/s]		0	-
	THR _{600s} [MJ]		0.6	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		16.7	-
	TSP _{600s} [m ²]		27	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant
Matt (2018-Efectis-R001108)	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]		17.5	-
	TSP _{600s} [m ²]		21	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant
Lustre (2019-Efectis-R000700)	FIGRA _{0.2MJ} [W/s]	1	30	-
	FIGRA _{0.4MJ} [W/s]		0	-
	THR _{600s} [MJ]		0.7	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		13.7	-
	TSP _{600s} [m ²]		50	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant
DOL 2860 gloss glue variant (2020-Efectis-R002579)	FIGRA _{0.2MJ} [W/s]	1	0	-
	FIGRA _{0.4MJ} [W/s]		0	-
	THR _{600s} [MJ]		0.6	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		0	-
	TSP _{600s} [m ²]		20	-
	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)	B	C	D
EN ISO 11925-2 Exposure = 30 s	F _s ≤ 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} ≤ 120 W/s LFS < edge of specimen THR _{600s} ≤ 7.5 MJ	FIGRA _{0.4 MJ} ≤ 250 W/s LFS < edge of specimen THR _{600s} ≤ 15 MJ	FIGRA _{0.4 MJ} ≤ 750 W/s
Additional classification			
Smoke production	s1 = SMOGRA ≤ 30 m ² /s ² and TSP _{600s} ≤ 50 m ² ; s2 = SMOGRA ≤ 180 m ² /s ² and TSP _{600s} ≤ 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 13501-1:2018.

4.2 CLASSIFICATION

The product, **Mactac LF 8500 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:

Film	80 µm flexible, transparent, calendered vinyl
Adhesive	20 µm, permanent, acrylic based, formulation > 2020
Surface density	107 g/m ²

This classification is valid for the following end use applications:

Substrate	Non-combustible (class A1 according to EN 13238:2010)
Air gap	40 mm
Methods and means of fixing	Glued using the adhesive of the product
Joints	Vertical only
Other aspects of end use conditions	Wall covering

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

Consult classification standard and national laws and regulations for limitations on the period of validity of the classification.

5. LIMITATIONS

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



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