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# RELATÓRIO DE CLASSIFICAÇÃO

*This document is an authorized English version of the reaction to fire classification report RC-RF 0035/2021-URF issued by the Reaction to Fire Testing Laboratory of the National Laboratory of Civil Engineering (LNEC/EM-URF).*

## CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2018-en (and COMMISSION DELEGATED REGULATION (EU) 2016/364 of 1 July 2015)

### 1 | Identification

<b>Sponsor:</b>	DIGIDELTA INTERNACIONAL - Importação e Exportação, S. A.
<b>Address of the sponsor:</b>	Casal Torteiro, Zona Industrial de Torres Novas 2350-483 Torres Novas
<b>Prepared by:</b>	Laboratório Nacional de Engenharia Civil (LNEC)
<b>Address:</b>	Av. do Brasil, 101, 1700-066 LISBOA PORTUGAL
<b>Description of the sample:</b>	Self-adhesive polypropylene (PP) [ <i>PVC free</i> ] clear film ( <i>overlaminated</i> ) commercial reference " <b>decal pp overlaminated P HT 65 UVP</b> ", smooth glossy finish, with clear acrylic adhesive, used to protect digitally printed images on self-adhesive polypropylene (PP) [ <i>PVC free</i> ] films " <b>Decal PVC free R SS BF PE 65 UVP</b> ".
<b>Classification report No:</b>	0035/2021-URF
<b>Date of issue:</b>	2021-07-22

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### 2 | Introduction

This classification report defines the reaction to fire classification assigned to the self-adhesive clear polypropylene (PP) [*PVC free*] film (*overlaminated*), commercial reference "**decal pp overlaminated P HT 65 UVP**", smooth glossy finish, with clear acrylic adhesive and removable liner (clay coated paper), used to protect digitally printed images on self-adhesive polypropylene (PP) [*PVC free*] films "**Decal PVC free R SS BF PE 65 UVP**". The classification is assigned in accordance with the procedures given in EN 13501-1:2018 - "*Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests*" (and COMMISSION DELEGATED REGULATION (EU) 2016/364 of 1 July 2015).



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## 3 | Details of the classified product

### 3.1 General

The classified product consist of a self-adhesive clear polypropylene (PP) [PVC free] film (*overlaminata*), commercial reference “**decal pp overlaminata P HT 65 UVP**”, smooth glossy finish, with clear acrylic adhesive and removable liner (clay coated paper), used to protect digitally printed images on self-adhesive polypropylene (PP) [PVC free] films “**Decal PVC free R SS BF PE 65 UVP**”, white matte.

### 3.2 Product description

In accordance with the information and the Technical Data Sheets supplied by the sponsor, the tested product samples presented the following generic characteristics:

- Manufacturer/trade agent ..... DIGIDELTA INTERNACIONAL
- Address of the manufacturer/trade agent ..... Zona Industrial de Torres Novas, Lote 1 Casal Torteiro  
2350-483 Torres Novas

(Sample 12/2021) – **decal pp overlaminata P HT 65 UVP Clear Glossy**

- Commercial generic designation ..... **decal pp overlaminata P HT 65 UVP**
- Finish ..... **glossy**, ref. 120z3989
- Material (*overlaminata*) ..... polypropylene (PP) [PVC free]
- Finish ..... smooth, with UV protection
- Colour ..... **clear**
- Mass per unit area (**nominal** value) ..... 52.9 g/m<sup>2</sup> (± 10%)
- Thickness ..... 65 µm (± 10%)
- Adhesive ..... clear acrylic based (ultra-crystalline)
- *Liner* (removable) ..... clay coated paper
  - Mass per unit area (**nominal** value) ..... 57 g/m<sup>2</sup> (± 10%)
  - Thickness (**nominal** value) ..... 55 µm (± 10%)
- Field of application ..... Lamination to protect digitally printed images  
(UV, solvent, or aqueous ink printing) on self-adhesive films (PP [PVC free])  
applied on flat smooth surfaces (excluding floorings)



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(Sample 33/2021-2) – **Decal PVC free R SS BF PE 65 UVP** (with digital print)

- Commercial generic designation ..... **Decal PVC free R SS BF PE 65 UVP**
- Finish ..... **matte, refª Z39931**
- Material (printed film).....polypropylene film (PP) [*PVC free*]
- Surface finish..... smooth
- Colour .....**white**
- Mass per unit area (**nominal** value).....60.2 g/m<sup>2</sup> (± 10%)
- Thickness ..... 65 µm (± 10%)
- Adhesive ..... clear acrylic based
- Liner (removable)..... embossed PE clay coated paper
  - Mass per unit area (**nominal** value) .....147 g/m<sup>2</sup> (± 10%)
  - Thickness (**nominal** value)) ..... 180 µm (± 10%)
- Field of application ..... smooth and non-porous flat surfaces (excluding floorings)

## 4 | Test reports and test results in support of classification

### 4.1 Test reports

Name of Laboratory	Name of sponsor	Report No. (*)	Test method and date
LNEC/EM-URF	DIGIDELTA INTERNACIONAL	0069/2021-URF	EN ISO 11925-2:2020
		0070/2021-URF	EN 13823:2020

\* - It was also issued the Test Report No. 0036/2021-URF concerning the determination of the gross heat of combustion (PCS) of three printing inks (UV, latex, and solvent), according to the European standard EN ISO 1716:2018, whose results were used to select the less favorable printing method (UV).



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## 4.2 Test results

Test method(s)	Parameter	No. test specimens	Results	
			Continuous parameter mean values * (individual values)	Compliance with parameters
EN 13823:2020 (SBI test)	FIGRA <sub>0,2MJ</sub> (W/s)	3	18 ( 12.9 / 26.2 / 13.5 )	YES
	FIGRA <sub>0,4MJ</sub> (W/s)		17 ( --- / 22.1 / 10.8 )	(YES)
	LFS < edge		YES ( YES / YES / YES )	YES
	THR <sub>600s</sub> (MJ)		1.7 ( 1.2 / 2.5 / 1.3 )	YES
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		--- ( --- / --- / --- )	YES
	TSP <sub>600s</sub> (m <sup>2</sup> )		16 ( 16.8 / 14.6 / 17.2 )	YES
	FDP		NO ( NO / NO / NO )	YES
EN ISO 11925-2: :2020	<b>F<sub>s</sub></b>	3 + 3	< 20	YES (F <sub>s</sub> ≤ 150 mm)
Edge and surface exposure to flame	Flaming droplets/particles		NO	YES
Exposure time: 30 s	Ignition of the filter paper		NO	YES

\* - Results obtained with samples ref. **decal pp overlaminate P HT 65 UVP Clear Glossy** + **Decal PVC free R SS BF PE 65 UVP**, white matte, printed.

## 5 | Classification and field of application

### 5.1 Reference of classification

This classification has been carried out in accordance with clause 11 of EN 13501-1:2018. December 2018 (and criteria defined in COMMISSION DELEGATED REGULATION (EU) 2016/364 of 1 July 2015).



# RELATÓRIO DE CLASSIFICAÇÃO

## 5.2 Classification

The product consisting of self-adhesive clear polypropylene (PP) film (*overlamine*, *PVC free*), glossy, “**decal pp overlamine P HT 65 UVP**”, used to protect digitally printed images on self-adhesive (PP) [*PVC free*] films “**Decal PVC free R SS BF PE 65 UVP**” (vd. RC-RF nº 0017/2021-URF), white matte, in relation to its reaction to fire behaviour is classified (see also 5.3):

**B**

The additional classification in relation to smoke production is:

**s1**

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

**d0**

The format of the reaction to fire classification **except for floorings** is:

Fire behaviour		Smoke production			Flaming droplets / particles	
<b>B</b>	-	<b>s</b>	<b>1</b>	.	<b>d</b>	<b>0</b>

*i.e.* **B-s1. d0**

**Reaction to fire classification: B-s1, d0**



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## 5.3 Field of application

This classification is valid for self-adhesive clear, glossy, polypropylene (PP) (*overlamine*, *PVC free*) films, commercial reference “**decal pp overlamine P HT 65 UVP**”, used to protect digitally printed images on self-adhesive (PP) [*PVC free*] films “**Decal PVC free R SS BF PE 65 UVP**” (vd. RC-RF nº 0017/2021-URF), with smooth white matte finish, when **applied directly** on **non-combustible surfaces** (classes **A1** or **A2-s1. d0**) having a density greater than 1350 kg/m<sup>3</sup> and a thickness equal or greater than 9 mm.

This classification is **not applicable** to uses of the products over existing coatings, and is valid for all the generic **polypropylene (PP) films** with the following characteristics:

### **decal pp overlamine P HT 65 UVP**

- Mass per unit area (**nominal** value)..... ≤ 65 g/m<sup>2</sup>
- Thickness (**nominal** value) ..... ≤ 70 µm
- Colour ..... **clear**
- Finish ..... smooth, glossy or matte

### **Decal PVC free (PP)**

- Mass per unit area (**nominal** value)..... ≤ 65 g/m<sup>2</sup>
- Thickness (**nominal** value) ..... ≤ 70 µm
- Colour ..... **white** (or clear)
- Finish ..... smooth; **matt** or **glossy**
- Print ..... UV, latex or aqueous ink printing; or not printed



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## 6 | Limitations

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

The classification presented in this Classification Report does not exempt the satisfaction of normative requirements (namely in the scope of CE marking) and others defined in the relevant legislation.

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Lisboa, LNEC, 22 July 2021

O COORDENADOR DA URF

Carlos Pina Santos

**Visto**  
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Chefe do NRI