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## Title:

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

## Approved Body No:

0833

## Product Name:

“Digiflor Tactile Digital Print Flooring”

## Report No:

WF 429752

## Issue No:

1

## Prepared for:

**Papergraphics Ltd.**
Diva Innovation Ctr.
Crompton Way
Crawley
West Sussex
RH10 9QR

## Date:

28th June 2021

## 1. Introduction

This classification report defines the classification assigned to "Digiflor Tactile Digital Print Flooring", a family of printed foam backed polyvinylchloride flooring products, in line with the procedures given in EN 13501-1: 2018.

## 2. Details of classified product

### 2.1 General

The products, "Digiflor Tactile Digital Print Flooring", are defined as being suitable for flooring applications.

### 2.2 Product description

The products, "Digiflor Tactile Digital Print Flooring", are fully described below and in the test reports provided in support of classification listed in Clause 3.1.

| | | |
|---|---|---|
| General description | | Digitally printed flooring |
| Product reference of overall composite | | "Digiflor Tactile digital print flooring" |
| Name of manufacturer of overall composite | | **See Note 1 Below** |
| Thickness of overall composite | | 2mm (stated by sponsor)<br>2.17 (determined by Warringtonfire) |
| Weight per unit area of overall composite | | 1000g/m$^2$ (stated by sponsor)<br>857.96g/m$^2$ (determined by Warringtonfire) |
| Ink | Product reference | "Latex" or "UVC" |
| | Colour | "Any colour / pattern" |
| | Generic type | Aqueous based polymer |
| | Name of manufacturer | Various |
| | Application method | Inkjet |
| | Application rate | 12 ml/m$^2$ |
| | Specific gravity | 1.01 - 1.03 |
| Coating | Generic type | **See Note 1 Below** |
| | Product reference | **See Note 1 Below** |
| | Name of manufacturer | **See Note 1 Below** |
| | Colour reference | "Any colour/pattern" |
| | Number of coats | **See Note 1 Below** |
| | Application rate / thickness per coat | **See Note 1 Below** |
| | Density / specific gravity | **See Note 1 Below** |
| | Application method | **See Note 1 Below** |
| | Curing process per coat | **See Note 1 Below** |
| | Flame retardant details | **See Note 1 Below** |

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| | | |
|---|---|---|
| Fabric | Generic type | Woven fabric |
| | Trade name | **See Note 1 Below** |
| | Name of manufacturer | **See Note 1 Below** |
| | Composition details | 100% polyester |
| | Thickness | 0.32mm |
| | Weight per unit area | 170g/m$^2$ |
| | Colour reference | "White" |
| | Type of weave | Plain weave |
| | Threads per inch (TPI) | 105x300 threads per inch |
| | Yarn count | 100x300 dtex |
| | Flame retardant details | **See Note 2 Below** |
| Foam | Generic type | Expanded polyvinylchloride |
| | Product reference | **See Note 1 Below** |
| | Name of manufacturer | **See Note 1 Below** |
| | Thickness | 1.7mm |
| | Density / weight per unit area | 650 g/m$^2$ |
| | Colour reference | "White" |
| | Flame retardant details | **See Note 1 Below** |
| Brief description of manufacturing process | | **See Note 1 Below** |
| Substrate | | The specimens were tested with a nominally 8mm thick fibre cement board (as specified in EN 13238: 2010) present. |

**Note 1:** The sponsor of the test has provided this information but at the specific request of the sponsor, these details have been omitted from the report and are instead held on the confidential file relating to this investigation.

**Note 2:** The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.

## 3. Test reports/ extended application reports & test results in support of classification

### 3.1 Test reports/ extended application reports

| Name of Laboratory | Name of sponsor | Test reports/ extended application report Nos. | Test method / extended application rules & date |
|---|---|---|---|
| Warringtonfire | Papergraphics Ltd | WF 429737 (indicative) & WF 429739 (formal) | EN ISO 11925-2: 2020 |
| Warringtonfire | Papergraphics Ltd | WF 429736 (indicative) & WF 429738 (formal) | EN ISO 9239-1: 2010 |
| Warringtonfire | Papergraphics Ltd | WF 429753 | EN 15725:2010 and EN/TS 15117:2005 |

### 3.2 Test results

| Test method & test number | Parameter | No. tests | Results | |
|---|---|---|---|---|
| | | | Continuous parameter - mean (m) | Compliance parameters |
| EN ISO 9239-1 | Critical flux | 3 – Latex ink | ≥11.0 kW/m$^2$ | - |
| | | 1 – UV ink | ≥11.0 kW/m$^2$ | |
| | Smoke | 3 – Latex ink | 51 % min | - |
| | | 1– UV ink | 43 % min | |
| EN ISO 11925-2 (15s exposure - surface) | $F_s$ | 6 – Latex ink | - | Compliant (≤80 mm) |
| | | 2 – UV ink | | Compliant (≤70 mm) |
| | Flaming droplets/ particles | 6 – Latex ink | - | Compliant |
| | | 2 – UV ink | | |
| EN ISO 11925-2 (15s exposure – edge) | $F_s$ | 6 – Latex ink | - | Compliant (≤70 mm) |
| | | 2 – UV ink | | Compliant (≤60 mm) |
| | Flaming droplets/ particles | 6 – Latex ink | - | Compliant |

## 4. Classification and field of application

### 4.1 Reference of classification

This classification has been carried out in accordance with clause 9 of EN 13501-1: 2018, BS EN 15725: 2010, EN/TS 15117: 2005, and EN 14041: 2004/AC: 2006.

### 4.2 Classification

The products, “Digiflor Tactile Digital Print Flooring”, a family of printed foam backed polyvinylchloride flooring products, in relation to its reaction to fire behaviour is classified:

**$B_{fl}$**

The additional classification in relation to smoke production is:

**s1**

The format of the reaction to fire classification for flooring applications is:

| Fire Behaviour | | Smoke Production | |
|---|---|---|---|
| $B_{fl}$ | - | s | 1 |

**i.e. $B_{fl}$ – s1**

# Reaction to fire classification: $B_{fl}$ – s1

### 4.3 Field of application

This classification is valid for the following end use applications:

i) Floorcovering applications applied over any substrate with a minimum density of 1800kg/m³, having a minimum thickness of 6mm and a fire performance of $A2_{fl}$-s1 or better.

ii) Installed with or without adhesive.

This classification is also valid for the following product parameters:

| | |
|---|---|
| Product thickness | No variation allowed |
| Product weight per unit area | No variation allowed |
| Product colour/pattern | Any variation allowed |
| Ink type | Latex or UV as described above |
| Product composition | No variation allowed other than print ink detailed above |
| Product construction | No variation allowed other than print ink detailed above |

## 5. Limitations

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

**SIGNED**



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**Stacey Deeming**
Principal Engineer
Technical Department

**APPROVED**



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**Matthew Dale**
Principal Certification Engineer
Technical Department
on behalf of Warringtonfire

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