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**CLASSIFICATION**

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

| | |
|---|---|
| Classification no. | 2018-Efectis-R000282[Rev.1] |
| Sponsor | Scandinavian Trading Limited<br>2 Glen Court Canada Road<br>Byfleet Surrey<br>KT14 7JL<br>UNITED KINGDOM |
| Product name | **Nordic QVFR** |
| Prepared by | Efectis Nederland BV |
| Notified body no. | 1234 |
| Author(s) | A.J. Lock<br>C.C.M. Steinhage B.Sc. |
| Project numbers | ENL-17-001295, ENL-18-000132 and ENL-18-000238 |
| Original date of issue | February 2018 |
| Date of issue | March 2018 |
| Number of pages | 5 |

# 1. INTRODUCTION

## 1.1 PRODUCT NAME

This classification report defines the classification assigned to **Nordic QVFR** in accordance with the procedures given in EN 13501-1:2007+A1:2009.

## 1.2 REVISION INFORMATION

The product name is modified, a different notation of the density is used and an addition of the type of substrate.
Original date of issue:

# 2. DETAILS OF CLASSIFIED PRODUCT

## 2.1 GENERAL

The product, **Nordic QVFR**, is defined as a flame retardant coating for wood substrates.

## 2.2 MANUFACTURER

Intumescent Systems Ltd.
Envirograf House
Barfrestone
CT15 7JG DOVER
UNITED KINGDOM

## 2.3 PRODUCT DESCRIPTION

Product description: Nordic QVFR applied on OSB board

- OSB board, thickness 18 mm;
- Coated with Nordic QVFR Clear Intumescent Coating (2 coat system);
  - No.1 coat: 1 coat a 12 $m^2$ per litre;
  - No 2 coat: 1 coat a 12 $m^2$ per litre (finish coat).

The product has a total thickness of 19 mm and a density of 600-680 $kg/m^3$.

# 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<br>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<br>THE NETHERLANDS | Intumescent Systems Ltd<br>Envirograf House<br>UNITED KINGDOM | 2018-Efectis-R000152<br>2018-Efectis-R000153 | EN ISO 11925-2:2010<br>EN 13823:2014 |

## 3.3 TEST RESULTS

| Test method and test number | Parameter | No. tests | Results | |
|---|---|---|---|---|
| | | | Continuous parameter – maximum | Compliance with parameters |
| **EN ISO 11925-2** | | | | |
| surface flame impingement | Fs ≤150 mm | 6 | 35 | - |
| | Ignition of filter paper | | - | Compliant |
| Edge flame Impingement | Fs ≤150 mm | 6 | 30 | - |
| | Ignition of filter paper | | - | Compliant |
| **Test method and test number** | **Parameter** | **No. tests** | **Results** | |
| | | | **Continuous parameter – mean (m)** | **Compliance with parameters** |
| **EN 13823** | $FIGRA_{0.2MJ}$ [W/s] | 3 | 35 | - |
| | $FIGRA_{0.4MJ}$ [W/s] | | 35 | - |
| | $THR_{600s}$ [MJ] | | 4.6 | - |
| | LFS < edge | | - | Compliant |
| | SMOGRA [$m^2/s^2$] | | 0.0 | - |
| | $TSP_{600s}$ [$m^2$] | | 19 | - |
| | Flaming debris<br>- flaming ≤ 10 s<br>- flaming > 10 s | | -<br>- | Compliant<br>Compliant |

## 3.4 CLASSIFICATION CRITERIA

| **Fire classification of construction products and building elements**<br>Excluding floorings and linear pipe thermal insulation products | | | |
|---|---|---|---|
| **Classification criteria** | | | |
| Class<br>Test method(s) | **B** | **C** | **D** |
| **EN ISO 11925-2**<br>Exposure = 30 s | $F_s$ ≤ 150 mm within 60 s<br>Ignition of the paper in EN ISO 11925-2 results in a d2 classification. | | |
| **EN 13823** | $FIGRA_{0.2\ MJ}$ ≤ 120 W/s<br>LFS < edge of specimen | $FIGRA_{0.4\ MJ}$ ≤ 250 W/s<br>LFS < edge of specimen<br>$THR_{600s}$ ≤ 15 MJ | $FIGRA_{0.4\ MJ}$ ≤ 750 W/s |

| | | | |
|---|---|---|---|
| | $THR_{600s}$ ≤ 7.5 MJ | | |
| **Additional classification** | | | |
| Smoke production | **s1** = SMOGRA ≤ 30 $m^2/s^2$ and $TSP_{600s}$ ≤ 50 $m^2$ ;<br>**s2** = SMOGRA ≤ 180 $m^2/s^2$ and $TSP_{600s}$ ≤ 200 $m^2$;<br>**s3** = not s1 or s2 | | |
| Flaming Droplets/particles | **d0** = no flaming droplets/ particles in EN 13823 within 600 s;<br>**d1** = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;<br>**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, **Nordic QVFR applied on OSB board**, 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 OSB Board | 18 mm |
| Density | 600-680 kg/m$^3$ |
| Other properties | 2 coating system:<br>– No.1 coat: 1 coat a 12 m$^2$ per litre;<br>– No 2 coat: 1 coat a 12 m$^2$ per litre (finish coat). |

This classification is valid for the following end use applications:

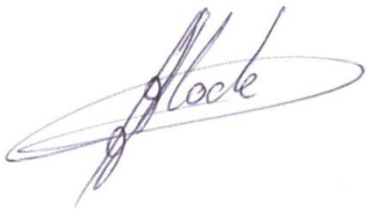
| | |
|---|---|
| Substrate | OSB wood substrates of same density or higher |
| Application | Wall panel |
| Air gap | None |
| Methods and means of fixing | Paint |
| Joints | Yes |
| Other aspects of end use conditions | Closed surface, no openings or gaps between components |

### 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.



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