TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Test Institute for Construction Prague, SOE

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Certification Body No 3015 accredited by the CAI
according to the ČSN EN ISO/IEC 17065:2013
Certification schemes No. 1a by ČSN EN ISO/IEC 17067:2014
Branch 0800 – FIRE SAFETY

REACTION TO FIRE

REPORT

in accordance with ČSN EN 13501-1+A1:2010
and ČSN EN 13501-1:2019

080-02300

Product name:
Nanocleaner Optimum 3G

carried out on the basis of test report No. 010-041880

Order No: Z 080190008

Classification report No.:   PKP – 19 - 101

Applicant: NAFIGATE Corporation, a.s.
                       Prosecká 851/64
                       190 00 Praha 9

Prepared by: Technický a zkušební ústav stavební Praha, s.p.
                       Prosecká 811/76a
                       190 00 Praha 9 – Prosek
                       Czech Republic

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1. Introduction

1.1. This Classification Report determines the classification of a product called **Nanocleaner Optimum 3G** in accordance with the procedures in ČSN EN 13501-1+A1:2010 and ČSN EN 13501-1:2019.

1.2. **Normative backgrounds:**

- ČSN EN 13501-1+A1: Fire classification of construction products and building structures - Part 1: Classification according to the results of reaction to fire tests (2/2010)
- ČSN EN 13501-1: Fire classification of construction products and building structures - Part 1: Classification according to the results of reaction to fire tests (9/2019)
- ČSN EN ISO 11925-2: Testing of reaction to fire - Flammability of construction products exposed to direct flame - Part 2: Testing for a small flame source (4/2011)
- ČSN EN 13238: Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates (6/2010)

2. Description of the construction product

2.1. Generally

Product - **Nanocleaner Optimum 3G** is defined according to the relevant technical data.

2.2. Description

Nanocleaner Optimum 3G is nanofibrous filter for air filtration in windows or doors. Nanofibers create nonwoven fabrics with a pore size of about 120 nm. Nanofiber layer is attached with insect screen.

Structure:
1. PET protective fabric from black coloured polyester woven fabric 57 g/m^2
2. Nanofibrous net – Polyvinylidene fluoride (PVDF) 0,1 g/m^2
3. Adhesive net –Co-polyester hotmelt adhesive fabric 8 g/m^2
4. Fiberglass mesh - 90 g/m^2 PVC coated fiberglass mesh

Basic weight: 150 g/m^2

Nano-fiber diameter: (120 ± 10) mm

Total thickness: 0,5 mm

Substrate: The sample was tested without substrate as it is used in practice.

3. Protocols and results used for this classification

3.1. Protocols

Name of the laboratory	Name of the customer	Protocol No. (Date of issue)	Test method and issue date Application rules area and date
TZUS Prague, s.p., Branch 0100 - Prague AZL. č. 1018.5	JUTA a.s. Dukelská 417, 544 15 Dvůr Králové nad Labem	010-041683 (2019-08-22)	ČSN EN ISO 11925-2:2011

3.2. Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter – average	Compliance the parameters
ČSN EN ISO 11925-2 exposure time 15 s exposure of the area	Fs ≤ 150 mm during 20 s	6	yes	meets
	Ignition of filter paper	6	no	does not meet

4. Classification and area of direct application

4.1. Classification links

This classification was carried out in accordance with ČSN EN 13501-1+A1:2010 and ČSN EN 13501-1:2019.

4.2. Classification

The product **Nanocleaner Optimum 3G** is classified according to its reaction to fire:

E

Additional classification according to burning droplets / particles:

no additional classification

Modification of the reaction to fire classification for construction products excluding floor coverings and thermal insulating products:

Fire behavior	Smoke production		Burning particles	
E	s	not classified	d	not classified

Reaction to fire classification: E

4.3. Application area

This classification applies to the following parameters:
- The product described in paragraph 2

The classification applies to the following end use applications:
- The Nanofibrous filter for air filtration in windows or doors

5. Restrictions

This classification report is only valid as a whole, and each page must be provided by the identification number of the classification report, page number of the total number of pages and the stamp of the contractor.

This classification report does not replace any type approval or product certification.

Prepared:
Ing. Hana KAFKOVÁ

Reviewed:
Ing. Iveta JIROUTOVÁ
Branch director 0800 – PBS
TZÚS Prague, SOE

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