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European Technical Assessment

ETA 23/0387
of 17.07.2023



General part

Technical Assessment Body issuing the ETA: ITeC

ITeC has been designated according to Article 29 of Regulation (EU) No 305/2011 and is member of EOTA (European Organisation for Technical Assessment).

**Trade name of the construction
product**

ES/VFR/C
92 ES/VFR/C1
92 Q/VFR/C1

**Product family to which the
construction product belongs**

Fire retardant products.

Manufacturer

INTUMESCENT SYSTEMS LTD
Envirograf House
Barfreestone
Dover CT15 7JG
United Kingdom

Manufacturing plant(s)

According to Annex N kept by ITeC.

**This European Technical
Assessment contains**

5 pages
and
Annex N, which contains confidential information and is not included in the European Technical Assessment when that assessment is publicly available.

**This European Technical
Assessment is issued in
accordance with Regulation
(EU) 305/2011, on the basis of**

European Assessment Document EAD 350865-00-1106.

General comments

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (excepted the confidential annex(es)).

Specific parts of the European Technical Assessment

1 Technical description of the product

ES/VFR/C (also put on the market under the trade names 92 ES/VFR/C1, 92 Q/VFR/C1) is a water-based intumescent coating designed to reduce the ignitability of wood-based boards, applied by brush, roller or spray gun, on the substrate as specified in section 2.

ES/VFR/C is applied together with a primer and a topcoat to make up a coating system as described in section 2. These ancillary products cannot be CE marked on the basis of this ETA.

2 Specification of the intended use(s) in accordance with the applicable EAD

ES/VFR/C is used as fire retardant product to improve the reaction to fire performance of a wood-based substrate surface of a construction product, excluding floorings.

Substrates must be dry and free from grease, dirt, dust, and other contaminants. Existing coatings other than the paints specified below must be completely removed.

ES/VFR/C can be applied to any wood-based substrate with a thickness ≥ 9 mm and a density ≥ 450 kg/m³, overpainted with water-based ES/VFR Clear Primer homogeneously applied in one layer at 12 m²/litre (wet).

ES/VFR/C shall be applied in two layers at 10 m²/litre each (wet), homogeneously distributed over the substrate surface.

Solvent-based Excel Clear topcoat is applied over ES/VFR/C in two layers, first at 8 m²/litre (wet) and last at 10 m²/litre (wet).

The wood-based substrate can be installed with or without an air gap behind. Butt joints can be installed between wood-based panels, completely covered by the coating system.

Regarding the environmental conditions, ES/VFR/C is intended for use category Type Z₂, defined as internal conditions with humidity lower than 85% R.H., excluding temperatures below 0°C, in accordance with EAD 350865-00-1106, section 1.2.1.

The provisions made in this ETA are based on a working life of ES/VFR/C of at least 5 years, provided that the conditions laid down in the manufacturer's instructions for the installation, use and maintenance are met. These provisions are based upon the current state of the art and the available knowledge and experience.

The indications given as to the working life cannot be interpreted as a guarantee but are to be regarded only as a means for choosing the appropriate product(s) in relation to the expected economically reasonable working life of the works.

3 Performance of the product and reference to the methods used for its assessment

3.1 Performance of the product

The assessment of ES/VFR/C has been performed in accordance with EAD 350865-00-1106 *Fire retardant products (July 2018)*.

Table 1: Performance of the product.

Product: ES/VFR/C		Intended use: Fire retardant product
Basic requirement	Essential characteristic	Performance
BWR 2 Safety in case of fire	Reaction to fire	B-s1,d0
	Durability	Type Z ₂

The complete coating system (primer, intumescent coating and topcoat) as described in section 2 has been assessed.

The rest of characteristics included in EAD 350865-00-1106 have not been assessed in this ETA.

3.2 Methods used for the assessment

3.2.1 Reaction to fire

The performance of ES/VFR/C coating system has been tested according to EN 13823 ¹ and EN ISO 11925-2 ² on plywood according to EN 636 ³.

Classification is given in accordance with EN 13501-1 ⁴ and Regulation (EU) 2016/364.

Apart from the substrate specified in section 2, classification is also valid for any substrate of class A1 or A2-s1,d0.

3.2.2 Durability

The durability of ES/VFR/C coating system has been tested for environmental use conditions Type Z₂ in accordance with EAD 350865-00-1106, section 2.2.2.

¹ EN 13823 *Reaction to fire tests for building products. Building products excluding floorings exposed to the thermal attack by a single burning item.*

² EN ISO 11925-2 *Reaction to fire tests. Ignitability of products subjected to direct impingement of flame. Part 2: Single-flame source test.*

³ EN 636 *Plywood. Specifications.*

⁴ EN 13501-1 *Fire classification of construction products and building elements. Part 1: Classification using data from reaction to fire tests.*

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

According to the Decision 1999/454/EC of the European Commission, the system of AVCP (see EC delegated Regulation (EU) No 568/2014 amending Annex V to Regulation (EU) 305/2011) given in the following table applies.

Table 2: AVCP System.

Product(s)	Intended use(s)	Level(s) or class(es)	System(s)
Fire protective products (including coatings)	Fire protection or fire performance	Any	1

5 Technical details necessary for the implementation of the AVCP system, as foreseen in the applicable EAD

All the necessary technical details for the implementation of the AVCP system are laid down in the *Control Plan* deposited with the ITeC and agreed in accordance with EAD 350865-00-1106, section 3.

The *Control Plan* is a confidential part of the ETA and only handed over to the notified product certification body involved in the assessment and verification of constancy of performance.

The factory production control operated by the manufacturer shall be in accordance with the above-mentioned *Control Plan*.

Issued in Barcelona on 17 July 2023

by the Catalonia Institute of Construction Technology.



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