Authenticated translation from the German Language
[The translation of the original German text has not been approved by the Deutsches Institut für Bautechnik].

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A statutory institute under public law jointly financed by the Federal Government and the Federal States

Approval and licensing body for construction products and construction designs

Date: **09/10/2023**
Reference No. **III 44-1.56.2-17/23**

General Construction Licence/ General Construction Design Approval

Number
Z-56.25-3573

Period of Validity
from: **October 9th 2023**
till: **October 9th 2028**

Applicant:
Indorama Ventures Fibres Germany GmbH
Philipp-Reis-Straße 2
65795 Hattersheim

Object of this notification:

Fabrics "Trevira CS ISE (inherently flame retardant)" and "Trevira CS plus NSK" as flame-retardant building materials

The aforementioned objects of regulation are hereby approved and licensed
This notification is six pages long

DIBt

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I GENERAL PROVISIONS

1. By way of this notification, the usability/applicability of the object of regulation is proven within the meaning of the State Building Laws.

2. This notification does not replace the implementation of the licenses, consents and certifications prescribed by law for the implementation of construction projects.

3. This notification is granted without prejudicing the rights of third parties, especially private property rights.

4. Copies of this notification are to be supplied to the user/applier of the object of regulation, notwithstanding any further-reaching regulations in the "Specific Provisions". In addition, the attention of the user/applier of the object of regulation is to be drawn to the fact that this notification must be available on site. Copies of this notification are also to be supplied to the authorities involved upon request.

5. This notification may only be copied in its entirety. The publication of extracts taken there from shall require the consent of the Deutsches Institut für Bautechnik *[German Institute for Construction Technology]*. Texts and drawings used in advertising materials may not contradict this notification. Translations must contain the note "The translation of the original German text has not been approved by the Deutsches Institut für Bautechnik".

6. This notification is granted subject to revocation. The provisions thereof may be subsequently supplemented and amended, especially should new technical insights render this necessary.

7. This notification is based upon the statements made and the documents presented by the applicant. Any changes to these bases shall not be covered by this notification and must be reported to the Deutsches Institut für Bautechnik without delay.

II. SPECIFIC PROVISIONS

1. Object of Regulation and Area of Use/Application

1.1. Object of Approval

The General Approval under construction law applies to the manufacturing and use of fabrics made from modified polyester, called Fabrics "Trevira CS ISE (inherently flame retardant)" and "Trevira CS plus NSK" as flame-retardant building materials whose fire behaviour corresponds to Class B-s1, d0 in accordance with DIN EN 13501-1 [1,,2].

The fabric "Trevira CS plus NSK" may also be given a coating of aluminium at the factory.

1.2. Scope of Use

1.2.1. This present general construction approval exclusively regulates the fire behaviour of the construction products.

1.2.2. The coated or non-coated fabrics may be used in the interior of constructional facilities as privacy shields and sunshade installations or as permanently installed stage curtains as fire-retardant building materials (Class B-s1, d0, according to DIN EN 13501-1 [1,2)].

1.2.3. A distance of ≥ 80 mm is to be maintained with regard to similar or other adjacently applied construction materials.

1.2.4. The fire behaviour is deemed not proven if the fabrics have been covered with paint, coating or any other similar substances in addition to the description of the object of approval in Section 1.1.

1.2.5. The fabrics must not be subjected to outdoor weather conditions.

2. Provisions for the Construction Products

2.1. Properties and Composition

2.1.1. The fabrics must be made from polyethylene terephthalate with incorporated fire protection materials.
The fabric "Trevira CS (inherently flame retardant)" must be made from fire-retardant polyester fibres.
The fabric "Trevira CS plus NSK" must be made from fire-retardant polyester fibres supplemented by a slow melting polyester component.
The fabric "Trevira CS plus NSK, aluminised" must be additionally given an aluminium coating by means of vaporisation.
The yarns used to manufacture the fabrics may be of different shades of colour.

2.1.2. The surface weight and thickness of the fabrics must conform to the values in Table 1. The nominal values may be exceeded or fallen short of by 10% at most.

2.1.3. The fabrics must, when installed at a distance of ≥ 80 mm to similar or other adjacently applied construction materials – comply with the fire behaviour of construction products of Class B-s1, d0, according to DIN EN 13501-1[1,2] Section 11 (cf. Table 1).

[1] DIN EN 13501-1:2010-01 Classification of construction products and construction designs with regard to their fire behaviour; Part 1: Classification according to the results of the testing of the fire behaviour of construction products.

[2] Note: Attention is drawn to the fact that the assignment to a class of construction product in accordance with DIN EN 13501-1 is a provisional decision in view of the lack of harmonised European definitions. Future harmonised product specifications may determine other test standards that might render retesting necessary.

Table 1

Name	Total Thickness [mm]	Surface Weight [nominal weight][g/m²]	Fire Behaviour according to DIN EN 13501-1[1,2]
"Trevira CS ISE (inherently flame retardant)"	0.15 - 1.0	48 – 590	Class B-s1, d0; only at a distance of ≥ 80 mm to similar or other adjacently applied construction materials
"Trevira CS plus NSK"	0.3 – 0.5	115 – 300	
"Trevira CS plus NSK", aluminised	0.3 – 0.5	110 – 225	

2.1.4. The composition of the individual construction materials must conform to the information stored with the Deutsches Institut für Bautechnik.
Amendments may only be undertaken with the consent of the Deutsches Institut für Bautechnik.

2.2. Manufacturing and Labelling

2.2.1. Manufacturing

The provisions of Section 2.1. are to be adhered to when manufacturing the construction products.

2.2.2. Labelling

The fabric, its packaging, information leaflet or delivery note must be labelled by the manufacturer with the mark of conformity [German: Ü-mark] in accordance with the regulations on marks of conformity in the various countries. Labelling may only take place when the conditions of Section 2.3. have been fulfilled.

The following information must be included on the packaging, information leaflet or delivery note of the construction product:

- Name of the product
- Mark of Conformity [Ü-mark] including:
  - Name of Manufacturer
  - Approval Number: Z-56.25-3573
  - Picture Mark or Designation of the Certifying Body
  - Manufacturing plant[3]
- Fire behaviour: fire-retardant building materials (Class B-s1, d0, according to DIN EN 13501-1) – only at a distance of ≥ 80 mm to similar or other adjacently applied construction materials.

2.3. Proof of Conformity

2.3.1. General Comments

The confirmation of the conformity of the construction products with the provisions of this general construction approval must be effected for each manufacturing plant, together with a declaration of conformity based upon internal factory production control and regular external monitoring conforming to the following provisions:

[3] The name of the manufacturer may also be encoded. The inspecting, monitoring and certifying body charged with the task of issuing the certificate of conformity must be provided with a list of the assignment of the manufacturing plant to the codes by the applicant.

For the granting of the certificate of conformity and for external monitoring including the product inspections to be carried out in connection therewith, the manufacturer of the construction products shall be required to engage the services of a recognised certifying body for the proof of fire behaviour in accordance with serial number 23/3 of the "Verzeichnis der Prüf-, Überwachung und Zertifizierungsstellen nach den Landesbauordnung" *[List of the inspecting, monitoring and certifying bodies according to the State Building Laws]*[4] Part IIa, as well as the monitoring body accredited for said purpose.
The manufacturer shall be required to issue their declaration of conformity by labelling the construction products, their packaging or information leaflet with the mark of conformity (Ü-mark), thereby indicating the intended purpose.
The Deutsches Institut für Bautechnik is to be supplied by the certifying body with a copy of the certificate of conformity that it has issued for the former's information.

2.3.2. Internal Factory Production Control

At each manufacturing plant in which the coated or non-coated fabrics are produced, an internal factory production control is to be set up and performed. The internal factory production control is understood to refer to the continuous monitoring by the manufacturer of their own production by means of which the latter guarantees that the products they manufacture do indeed conform to the requirements of the general construction approval.
For the implementation of the internal factory production control with regard to fire behaviour the "Richtlinien zum Übereinstimmungsnachweis schwerentflammbarer Baustoffe (Baustoffklasse DIN 4102 B1) nach allgemeiner bauaufsichtlicher Zulassung" *[Guidelines on the proof of conformity of fire-retardant construction materials (Construction materials class DIN 4102 B1) after general construction approval]* [5]shall be applied in the version valid at the given time.
The results of the internal factory production control are to be recorded and analysed. As a minimum requirement, these must contain the following:

- designation of the construction product or the source material and components
- nature of the control or inspection
- date of manufacturing and inspection of the construction product or the source material or components
- results of the controls and inspections and, insofar as applicable, a comparison with requirements
- signature of the person responsible for the internal factory production control.

The records are to be stored for a minimum period of five years and presented to the monitoring body engaged to perform the external monitoring. They are to be provided to the Deutsches Institut für Bautechnik and the responsible uppermost construction supervisory authority upon demand.
Should the inspection results be deemed inadequate, the manufacturer shall be required to take the necessary steps to rectify the defect immediately. Construction products that do not conform to the requirements are to be handled in such a manner that confusion with products that do conform to said requirements is ruled out. As far as technically possible and for the purpose of proving the rectification of the defect, the inspection in question is to be repeated immediately after the defect has been rectified.

[4] Last published electronically in the internet under www.dibt.de -> Service ->Listen und Verzeichnisse ->PÜZ-Verzeichnis 2023
[5] Last published in the "Communications" of the Deutsches Institut für Bautechnik", Issue 2, April 1st 1997.

2.3.3. External Monitoring

At each manufacturing plant in which the coated or non-coated fabrics are produced, the internal factory production control is to be regularly monitored by an external body, but once a year at the very least, however.
For the implementation of the monitoring the "Richtlinien zum Übereinstimmungsnachweis schwerentflammbarer Baustoffe (Baustoffklasse DIN 4102 B1) nach allgemeiner bauaufsichtlicher Zulassung *[Guidelines on the proof of conformity of fire-retardant construction materials (Construction materials class DIN 4102 B1) after general construction approval]* [5] shall be applied in the version valid at the given time.

In the context of implementing external monitoring, an initial inspection of the construction product is to be performed and samples to be taken and inspected in accordance with the aforementioned "Guidelines…" and samples for random inspections may also be taken. The responsibility for the taking of the samples and for the inspections shall, in each case, lie with the recognised external monitoring body.

The results of the certification and the external monitoring are to be stored for a minimum period of five years. They are to be provided to the Deutsches Institut für Bautechnik and the responsible uppermost construction supervisory authority by the certifying or external monitoring body upon demand.

Otto Fechner
Head of Unit

Authenticated
Dommaschk

I, the undersigned, Peter William Elliott, a duly authorised translator for the English language for the Law Courts and Notaries in the State of Hesse, Federal Republic of Germany, Landgericht [District Court] Hanau, hereby certify that the foregoing is a complete and true translation, consisting of six (6) page(s) of the German document provided to me as a PDF document consisting itself of six (6) page(s).

Maintal, 19.10.2023

P.W. Elliott

Peter William Elliott,
allgemein ermächtigter
Übersetzer der englischen Sprache,
63477 Maintal.