

# SLOVENSKI STANDARD SIST EN 15814:2011/kFprA2:2014

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# Bitumenske debeloslojne prevleke, modificirane s polimeri - Definicije in zahteve

Polymer modified bituminous thick coatings for waterproofing - Definitions and requirements

Kunststoffmodifizierte Bitumendickbeschichtungen zur Bauwerksabdichtung - Begriffe und Anforderungen

Revêtements bitumineux épais modifiés aux polymères pour imperméabilisation -Définitions et exigences

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ICS:

91.100.50 Veziva. Tesnilni materiali Binders. Sealing materials

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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**English Version** 

# Polymer modified bituminous thick coatings for waterproofing -Definitions and requirements

Revêtements bitumineux épais modifiés aux polymères pour imperméabilisation - Définitions et exigences Kunststoffmodifizierte Bitumendickbeschichtungen zur Bauwerksabdichtung - Begriffe und Anforderungen

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 361.

This draft amendment A2, if approved, will modify the European Standard EN 15814:2011+A1:2012. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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# Foreword

This document (EN 15814:2011/FprA2:2014) has been prepared by Technical Committee CEN/TC 361 "Project Committee - Polymer modified bituminous thick coatings for waterproofing - Definitions/requirements and test methods", the secretariat of which is held by DIN.

This document is currently submitted to the Unique Acceptance Procedure.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

Note: Due to fact that the Framework Partnership Agreement between the Commission and CEN & CENELEC is not signed yet, there are currently no New Approach Consultants in place for 2014. Therefore the provisions of CEN-CENELEC Guide 15 cannot be met.

This shall not prevent the processing of draft standards nor the offering of harmonized standards to the Commission. In particular, draft standards can be sent to vote without Consultant assessment.

This note will be removed from the Foreword of the finalized publication.

# 1 Modification to Clause 2

Replace "ISO 1183-1:2004" with "EN ISO 1183-1".

Delete the reference to "EN ISO 2811-2".

# 2 Modification to Clause 4

Under Clause 4 "Requirements" add a new headline for sub-clause "4.1 General".

Add a new sub-clause "4.2 Dangerous substances" with the following text:

"National regulations on dangerous substances may require verification and declaration on release, and sometimes content, when construction products covered by this standard are placed on those markets. In the absence of European harmonised test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction web site on EUROPA accessed through: <u>http://ec.europa.eu/enterprise/construction/cpd-ds/."</u>

# 3 Modification to Clause 4, Table 1, line 3, column 2

*Replace "*No changes to the material according to EN 15817," *by a third requirement* "3. No changes to the material".

# 4 Modification to Clause 5

Replace the entire Clause 5 with the following.

"

# 5 Assessment and verification of the constancy of performance – AVCP

## 5.1 General

The compliance of PMBC with the requirements of this standard and with the declared values (including classes) shall be demonstrated by:

- determination of the product type;
- factory production control by the manufacturer, including product assessment.

The manufacturer shall always retain the overall control and shall have the necessary means to take responsibility for the conformity of the product with its declared performance(s).

NOTE The assignment of tasks to the notified bodies and the manufacturer is shown in Table ZA.3.

## 5.2 Type testing

#### 5.2.1 General

All performances related to characteristics included in this standard shall be determined when the manufacturer intends to declare the respective performances unless the standard gives provisions for declaring them without performing tests (e.g. use of previously existing data, CWFT and conventionally accepted performance).

Assessment previously performed in accordance with the provisions of this standard, may be taken into account provided that they were made to the same or a more rigorous test method, under the same AVCP

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system on the same product or products of similar design, construction and functionality, such that the results are applicable to the product in question.

NOTE Same AVCP system means testing by an independent third party [only for products covered by system 1+, 1 and 3], under the responsibility of a notified product certification body.

For the purposes of assessment, the manufacturer's products may be grouped into families, where it is considered that the results for one or more characteristics from any one product within the family are representative for those same characteristics for all products within that same family.

Products may be grouped in different families for different characteristics.

Reference to the assessment method standards should be made to allow the selection of a suitable representative sample.

In addition, the determination of the product type shall be performed for all characteristics included in the standard for which the manufacturer declares the performance:

- at the beginning of the production of a new or modified PMBC (unless a member of the same product range), or
- at the beginning of a new or modified method of production (where this may affect the stated properties); or

they shall be repeated for the appropriate characteristic(s), whenever a change occurs in the PMBC design, in the raw material or in the supplier of the components, or in the method of production (subject to the definition of a family), which would affect significantly one or more of the characteristics.

Where components are used whose characteristics have already been determined, by the component manufacturer, on the basis of assessment methods of other product standards, these characteristics need not be re-assessed. The specifications of these components shall be documented.

Products bearing regulatory marking in accordance with appropriate harmonized European specifications may be presumed to have the performances declared in the DoP, although this does not replace the responsibility on the PMBC manufacturer to ensure that the PMBC as a whole is correctly manufactured and its component products have the declared performance values.

#### 5.2.2 Test reports

The results of the determination of the product type shall be documented in test reports. All test reports shall be retained by the manufacturer for at least 10 years after the last date of production of the PMBC to which they relate.

## 5.3 Factory production control (FPC)

#### 5.3.1 General

The manufacturer shall establish, document and maintain an FPC system to ensure that the products placed on the market comply with the declared performance of the characteristics.

The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control raw and other incoming materials or components, equipment, the production process and the product. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures.

This factory production control system documentation shall ensure a common understanding of the evaluation of the constancy of performance and enable the achievement of the required product performances and the effective operation of the production control system to be checked. Factory production control therefore brings

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together operational techniques and all measures allowing maintenance and control of the compliance of the product with the declared performances of the essential characteristics.

#### 5.3.2 Requirements

#### 5.3.2.1 General

The manufacturer is responsible for organizing the effective implementation of the FPC system. Tasks and responsibilities in the production control organization shall be documented and this documentation shall be kept up-to-date.

The responsibility, authority and the relationship between personnel that manages, performs or verifies work affecting product constancy, shall be defined. This applies in particular to personnel that need to initiate actions preventing product non-constancies from occurring, actions in case of non-constancies and to identify and register product constancy problems.

Personnel performing work affecting the constancy of performance of the product shall be competent on the basis of appropriate education, training, skills and experience for which records shall be maintained.

In each factory the manufacturer may delegate the action to a person having the necessary authority to:

- identify procedures to demonstrate conformity of the product at appropriate stages;
- identify and record any instance of non-conformity;
- identify procedures to correct instances of non-conformity.

The manufacturer shall draw up and keep up-to-date documents defining the factory production control. The manufacturer's documentation and procedures should be appropriate to the product and manufacturing process. The FPC system should achieve an appropriate level of confidence in the conformity of the product.

This involves:

- a) the preparation of documented procedures and instructions relating to factory production control operations, in accordance with the requirements of the technical specification to which reference is made;
- b) the effective implementation of these procedures and instructions;
- c) the recording of these operations and their results;
- d) the use of these results to correct any deviations, repair the effects of such deviations, treat any resulting instances of non-conformity and, if necessary, revise the FPC to rectify the cause of non-conformity.

Where subcontracting takes place, the manufacturer shall retain the overall control of the product and ensure that he receives all the information that is necessary to fulfill his responsibilities according to this European Standard.

If the manufacturer has part of the product designed, manufactured, assembled, packed, processed and/or labelled by subcontracting, the FPC of the subcontractor may be taken into account, where appropriate for the product in question.

The manufacturer who subcontracts all of his activities may in no circumstances pass these responsibilities on to a subcontractor.

NOTE - Manufacturers having an FPC system, which complies with EN ISO 9001 standard and which addresses the provisions of the present European standard are considered as satisfying the FPC requirements of the Regulation (EU) No 305/2011.

# 5.3.2.2 Equipment

# 5.3.2.2.1 Testing

All weighing, measuring and testing equipment shall be calibrated and regularly inspected according to documented procedures, frequencies and criteria.

## 5.3.2.2.2 Manufacturing

All equipment used in the manufacturing process shall be regularly inspected and maintained to ensure use, wear or failure does not cause inconsistency in the manufacturing process. Inspections and maintenance shall be carried out and recorded in accordance with the manufacturer's written procedures and the records retained for the period defined in the manufacturer's FPC procedures.

# 5.3.2.3 Raw materials and components

The specifications of all incoming raw materials and components shall be documented, as shall the inspection scheme for ensuring their compliance. In case supplied kit components are used, the attestation of conformity level of the component shall be that given in the appropriate harmonised technical specification for that component.

## 5.3.2.4 Controls during manufacturing process

The manufacturer shall plan and carry out production under controlled conditions.

# 5.3.2.5 Product testing and evaluation

The manufacturer shall establish procedures to ensure that the stated values of the characteristics he declares are maintained. The characteristics, and the means of control, are given in Table 2.

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Characteristic	Test method	Production control frequency	Tolerances
Flexibility at low temperature	EN 15813	Weekly or per batch	According to EN 15813
Dimensional stability at high temperature	EN 15818	Weekly or per batch	According to EN 15818
For the A-component			
<ul> <li>Solids content</li> </ul>	EN ISO 3251	Weekly or per batch	±4% absolute
<ul> <li>Ash content (only for products with ash content ≥ 5 mass %)</li> </ul>	EN ISO 3451-1 with testing at a temperature of $(475 \pm 25)$ °C	Weekly or per batch	$\pm$ 2 % absolute
For the B-component (only for two component PMBC)			
<ul> <li>Bulk density (for powder component)</li> </ul>	EN ISO 3923-1 or EN 459-2:2010, 5.4	Weekly or per batch	$\pm$ 0,1 g/cm <sup>3</sup>
<ul> <li>Density (for liquid component)</li> </ul>	EN ISO 2811-1	Weekly or per batch	$\pm$ 0,1 g/cm <sup>3</sup>
For the cured PMBC			
— Density	EN ISO 1183-1, method A	Weekly or per batch	$\pm$ 0,1 g/cm <sup>3</sup>
Identification for inlays:			
<ul> <li>Type</li> <li>Mass per unit area</li> <li>Strength and elongation at break</li> </ul>	To be stated. Depending on the type of inlay, a suitable test has to be applied at incoming products.	At incoming products	

# Table 2 — Factory Production Control

For the purpose of the Factory Production Control alternative tests to those given in Table 2 may be used, provided that a correlation of the results between both tests, for the product in question, is established. The use of alternative tests shall be recorded and maintained.

## 5.3.2.6 Non-complying products

The manufacturer shall have written procedures which specify how non-complying products shall be dealt with. Any such events shall be recorded as they occur and these records shall be kept for the period defined in the manufacturer's written procedures.

Where the product fails to satisfy the acceptance criteria, the provisions for non-complying products shall apply, the necessary corrective action(s) shall immediately be taken and the products or batches not complying shall be isolated and properly identified.

Once the fault has been corrected, the test or verification in question shall be repeated.

The results of controls and tests shall be properly recorded. The product description, date of manufacture, test method adopted, test results and acceptance criteria shall be entered in the records under the signature of the person responsible for the control/test.

With regard to any control result not meeting the requirements of this European Standard, the corrective measures taken to rectify the situation (e.g. a further test carried out, modification of manufacturing process, throwing away or putting right of product) shall be indicated in the records.