



SLOVENSKI STANDARD

SIST EN 14733:2005

01-november-2005

Bitumen in bitumenska veziva – Kontrola proizvodnje v obratih za proizvodnjo bitumenskih emulzij ter fluksiranih in rezanih bitumnov

Bitumen and bituminous binders - Bituminous emulsions, fluxed and cut-back bitumen factory production control

Bitumen und bitumenhaltige Bindemittel - Werkseigene Produktionskontrolle von Bitumenemulsionen, gefluxtem und verschnittenem Bitumen

Bitumes et liants bitumineux - Maîtrise de la production en usine des émulsions de bitume, des bitumes fluxés et fluidifiés

Ta slovenski standard je istoveten z: EN 14733:2005

ICS:

75.140	Voski, bitumni in drugi naftni proizvodi	Waxes, bituminous materials and other petroleum products
91.100.50	Veziva. Tesnilni materiali	Binders. Sealing materials

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
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May 2005

ICS 75.140; 91.100.50

English version

Bitumen and bituminous binders - Bituminous emulsions, fluxed and cut-back bitumen factory production control

Bitumes et liants bitumineux - Maîtrise de la production en usine des émulsions de bitume, des bitumes fluxés et fluidifiés

Bitumen und bitumenhaltige Bindemittel - Werkseigene Produktionskontrolle von Bitumenemulsionen, gefluxtem und verschnittenem Bitumen

This European Standard was approved by CEN on 21 April 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Foreword

This document (EN 14733:2005) has been prepared by Technical Committee CEN/TC 336 “Bituminous binders”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2005, and conflicting national standards shall be withdrawn at the latest by November 2005.

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 Construction Products Directive 89/106/CE.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Introduction

This European Standard for Factory Production Control (FPC) is suitable for use in more general quality systems in the binder industry. The document is based on certain requirements of EN ISO 9001 but stands alone and does not require reference to EN ISO 9001 for its application.

The system in this European Standard builds mainly upon traditional sampling and testing of constituent materials and finished product. Processes as well as process control systems are continuously being developed which means that new systems for Factory Production Control will be introduced and implemented. If a producer is able to demonstrate that his process control system is able to secure the fulfilment of the requirements on the finished products in a satisfactory way then alternative frequencies of inspection and testing to those indicated in this document may be appropriate.

The Factory Production Control (FPC) has the aim of providing adequate assurance that the binder conforms with the relevant technical specifications.

The basis of this European Standard is that of the control of constituents, composition and manufacturing. It does not involve the routine monitoring of the performance properties of the binder. Concerning catatonic emulsions, this is dealt with separately in EN 13808 whereas for cut-back and bituminous binders, is dealt with by another standard, which is currently in progress.

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1 Scope

This European Standard specifies Factory Production Control (FPC) requirements for use by the manufacturers of bituminous emulsions, cut-back and fluxed binders.

This European Standard is applicable to the control of bituminous binders where the constituents and composition are known, having been derived from a prescriptive specification or from the Initial Type Test (ITT) procedure for demonstration of performance related properties described in the appropriate product standard or from a European Technical Approval.

NOTE 1 Factory Production Control is a requirement of all harmonised elements of harmonised European Standards and European Technical Approvals for bituminous binders if the CE mark of conformity is to be affixed. The system can also be applied to non-harmonised elements and to situations where CE marking is not mandatory.

NOTE 2 Regulated properties of the products are involved in this document.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1425, *Bitumen and bituminous binders – Characterization of perceptible properties*

EN 1426, *Bitumen and bituminous binders – Determination of needle penetration*

EN 1427, *Bitumen and bituminous binders – Determination of softening point – Ring and Ball method*

EN 1428, *Bitumen and bituminous binders – Determination of water content in bitumen emulsions – Azeotropic distillation method*

EN 1429, *Bitumen and bituminous binders – Determination of residue on sieving of bitumen emulsions and determination of storage stability by sieving*

EN 1431, *Bitumen and bituminous binders – Determination of recovered binder and oil distillate from bitumen emulsions by distillation*

EN 12595, *Bitumen and bituminous binders – Determination of kinematic viscosity*

EN 12596, *Bitumen and bituminous binders – Determination of dynamic viscosity by vacuum capillary*

EN 12846, *Bitumen and bituminous binders – Determination of the efflux time of bitumen emulsions by the efflux viscosimeter*

EN 12848, *Bitumen and bituminous binders – Determination of mixing stability with cement of bitumen emulsions*

EN 12850, *Bitumen and bituminous binders – Determination of the pH value of bitumen emulsions*

EN 13074, *Bitumen and bituminous binders – Recovery of binder from emulsion by evaporation*

EN 13075-1, *Bitumen and bituminous binders – Determination of breaking behaviour – Part 1: Determination of breaking value of cationic bitumen emulsions, mineral filler method*

EN 13075-2, *Bitumen and bituminous binders – Determination of breaking behaviour – Part 2: Determination of fines mixing time of cationic bitumen emulsions*

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EN 13357, *Bitumen and bituminous binders – Determination of the efflux time of petroleum cut-back and fluxed bitumen*

EN 13358, *Bitumen and bituminous binders – Determination of the distillation characteristics of petroleum cut-back bitumen products*

EN 13587, *Bitumen and bituminous binders – Determination of the tensile properties of bituminous binders by the tensile test method*

EN 13588, *Bitumen and bituminous binders – Determination of cohesion of bituminous binders with pendulum test*

EN 13589, *Bitumen and bituminous binders – Determination of the tensile properties of modified bitumen by the force ductility method*

EN 13703, *Bitumen and bituminous binders – Determination of deformation energy*

prEN 14769, *Bitumen and bituminous binders – Accelerated long-term ageing - Pressure Ageing Vessel (PAV)*

prEN 14895, *Bitumen and bituminous binders – Stabilisation of binder from bituminous emulsion or from cut-back and fluxed bitumen*

prEN 14896, *Bitumen and bituminous binders – Determination of the dynamic viscosity of bituminous emulsions – Rotating spindle viscometer method*

EN ISO 2719, *Determination of flash point – Pensky-Martens closed cup method (ISO 2719:2002)*

EN ISO 3405, *Petroleum products – Determination of distillation characteristics method at atmospheric pressure (ISO 3405:2000)*

EN ISO 3675, *Crude petroleum and liquid petroleum products – Laboratory determination of density – Hydrometer method (ISO 3675:1998)*

EN ISO 9001, *Quality management systems – Requirements (ISO 9001:2000)*

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

3.1

Factory Production Control (FPC)

permanent internal control of production exercised by the manufacturer. All the elements, requirements and provisions adopted by the manufacturer are documented in a systematic manner in the form of written policies and procedures. This production control system documentation ensures a common understanding of quality assurance and enables the achievement of the required product characteristics and the effective operation of the production control system to be checked

NOTE 1 Factory Production Control (FPC) includes the inspections and tests used to monitor the equipment, constituent materials, manufacturing process and the finished product.

NOTE 2 The task of Factory Production Control (FPC) is to give assurance that production conforms with the relevant Initial Type Test.

3.2

technical specifications

harmonised European Standards and European Technical Approvals for bituminous emulsion, cut-back and fluxed binders

3.3

perceptible properties

evaluation made with the senses: sight, touch, smell, hearing, etc. It is a broader concept than the more commonly used term of a visual inspection.

EXAMPLE a check on a bitumen delivery might involve visual (colour, fuming and texture), smell (odour) and touch (how it feels when cold). This would detect whether the bitumen conformed with the expectations of the tester and would be the quickest way to detect a defective load

NOTE In all cases organoleptic checks should extend only as far as health and safety regulations permit.

3.4

Initial Type Test (ITT)

complete set of tests or other procedures described in the technical specification, determining the performance of samples of products representative of the product type

4 Requirements

4.1 Factory Production Control (FPC)

The producer shall operate a documented Factory Production Control (FPC) system complying with the requirements of this document.

4.2 Quality Plan

The producer shall establish and maintain his policy and procedures for Factory Production Control in a written Quality Plan.

The Quality Plan shall particularly include means for identifying and detailing the specific processes, which directly affect product quality and conformity.

The Quality Plan shall particularly include:

- producer's organisational structure relating to conformity;