



 **CONICA**[®]
sports surfaces

 **BASF**
The Chemical Company

Jürgen Widler



Status CEN 217, WG 2

Indoor Flooring Systems for Multipurpose use



Harmonisation of EN 14904

EN 14904

Indoor Flooring Systems for Multipurpose use



- 4 Essential requirements.....
- 4.1 Reaction to fire.....
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EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements



Protection of Athletes



Reaction to Fire



Emission



**Release of Dangerous
Substances**

EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements for safety use



Protection of Athletes from Injury



Friction



Shock absorption

EN 14904

Indoor Flooring Systems for Multipurpose use
Essential requirements

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Reaction to Fire

EN 14904

Indoor Flooring Systems for Multipurpose use

Essential requirements

Reaction to Fire



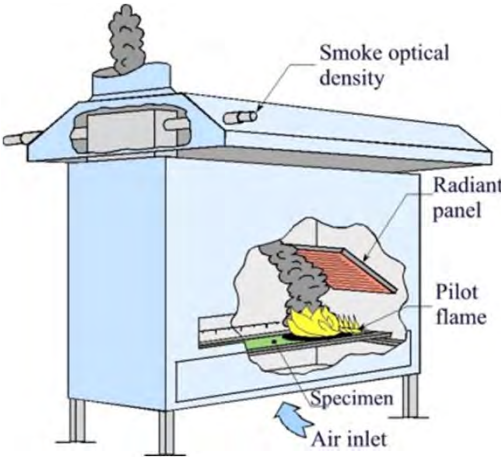
Small Burner Test:

EN ISO 11925



Radiant Panel Test:

EN ISO 9239-1



EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements

Reaction to Fire



European Classification: EN 13501-1

Requirements for general technical approvals	Former German Classification according to DIN 4102-1	European Classification acc. to DIN EN 13501-1	
Non-combustible	A1, A2	A1 _{fl} A2 _{fl} - s1	Radiant Panel Test
Of low flammability	B1	B _{fl} - s1 C _{fl} - s1	
Normally inflammable	B2	A2 _{fl} - s2 B _{fl} - s2 C _{fl} - s2 D _{fl} - s1 D _{fl} - s2 E _{fl}	Small Burner Test
Easily inflammable	B3	F _{fl}	

Critical heat flow

Smoke density

EN 14904

Indoor Flooring Systems for Multipurpose use

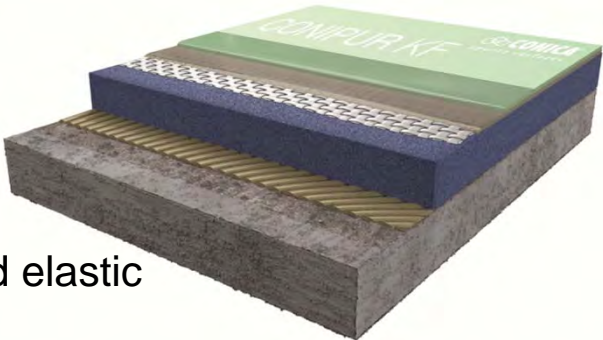
Essential requirements



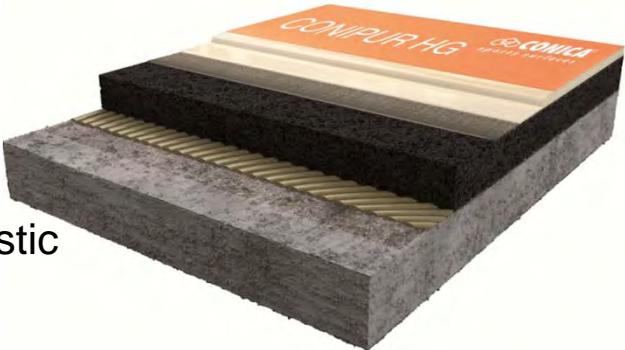
Reaction to Fire



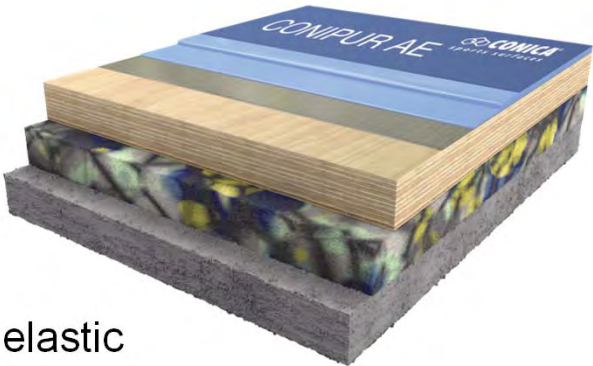
Sports Flooring Systems



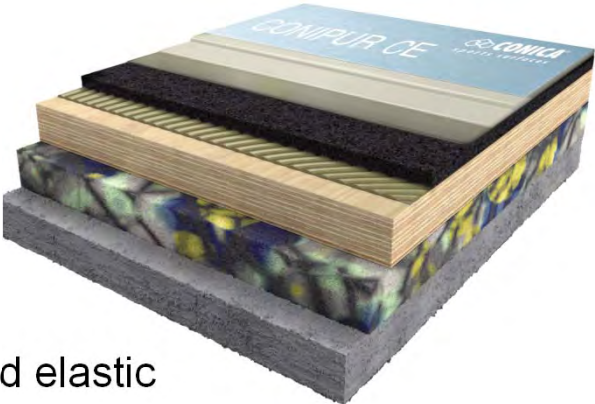
Mixed elastic



Point elastic



Area elastic



Combined elastic

EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements

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Reaction to Fire



**The whole System
has to be
tested and classified !**

For Area elastic and Combined elastic Systems with elastic construction:

- Top layer
- load distribution plate
- sleeper layer

REACTION TO FIRE CLASSIFICATION REPORT
No. RA08-0344
ACCORDING TO THE EUROPEAN STANDARD
NF EN 13501-1

Notification by the French Government to the European Commission under no 0679.
Seule la version française fait foi.
The French version is legally acceptable

Product standard

NF EN 14904: "Surfaces for sports areas - Indoor surfaces for multi-sports use - Specifications"

Owner: BASF Construction Chemicals Europe AG
Industriestrasse 26
8207 SCHAFFHAUSEN
SWISS

Commercial brand(s): CONIPUR HG PROTECT+

Brief description: Polyurethane floor covering
(see detailed description in paragraph 2)

Date of issue: October 24th, 2011

The indicated classification does not prejudice the conformity of marketed materials with the samples submitted to the tests and under no circumstances, this document should not be considered as type approval or certification of the product in the sense of the L 1115-27 article of the consumption's code and of the law dated June 3rd, 1994.
If this report is being issued by e-mail and/or on an electronic medium, only the hard copy of the report signed by CSTB shall prevail in the event of a dispute.
The reproduction of this classification report is only authorised in its integral form.
It comprises 5 pages.

Modification of commercial brand of the product.
The document RA08-0344 dated October 24th, 2011 cancels and replaces the document RA08-0344 dated August 10th, 2009.

**Defined
Products
in defined
Systems**

1. Introduction

This classification report defines the classification assigned to the above-mentioned product(s) in accordance with the procedures given in the NF EN 13501-1 standard.

2. Product description

Polyurethane floor covering tested over an A2_s-s1 fibre-cement substrate and over a 22 mm thick particles board substrate.

Floor covering consisting of:

- An adhesive layer CONIPUR 111 applied at the rate of 0.8 kg/m²,
- A 3 or 10 mm thick underlay made of granulates rubber,
- A pore sealer CONIPUR 220 FL applied at the rate of 0.8 kg/m²,
- A 2 mm thick poured layer CONIPUR 224 FL made of polyurethane resin applied at the rate of 2.8 kg/m²,
- A 0.1 mm thick finishing poured layer CONIPUR 67 (N) made of polyurethane resin applied at the rate of 0.15 kg/m².

Overall thicknesses of the systems: 5 and 12 mm.

Colours: various.

3. Tests reports and tests results in support of this classification

3.1 Tests reports

Name of laboratory	Name of sponsor	Test identification	Test report Nos.	Test method
CSTB	BASF Construction Chemicals Europe AG Industriestrasse 26 8207 SCHAFFHAUSEN SWISS	ES541110359	Modification file	-
		ES541080430	RA08-0344	EN ISO 11925-2
		ES541070883 ES541070333	RA08-0215 RA07-0365	EN ISO 9239-1

4. Classification and direct field of application

4.1 Reference of the classification

This classification has been carried out in accordance with clause(s) 12.6 and 12.9.2 of the NF EN 13501-1 standard.

4.2 Classification

Fire behaviour		Smoke production
B _{fl}	-	s1

Classification: B_{fl} - s1

4.3 Field of application

This classification is valid for the following product parameters:

- A range of nominal thicknesses of the underlay from 3 to 10 mm.
- A range of overall nominal thicknesses from 5 to 12 mm.

This classification is valid for the following end use conditions:

- Over any A2_s-s1 or A1_s class substrate with a density ≥ 1200 kg/m³.

EN 14904

Indoor Flooring Systems for Multipurpose use
Essential requirements

BASF
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**Emission of
Dangerous substances**

EN 14904

Indoor Flooring Systems for Multipurpose use

Essential requirements



Emission of Dangerous Substances



EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements

Emission of Dangerous Substances



EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements

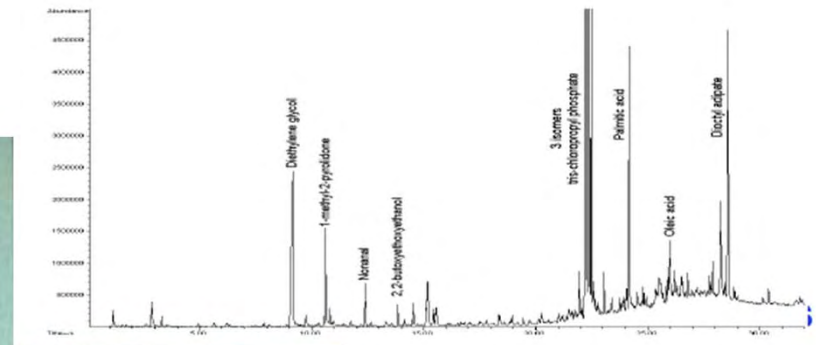
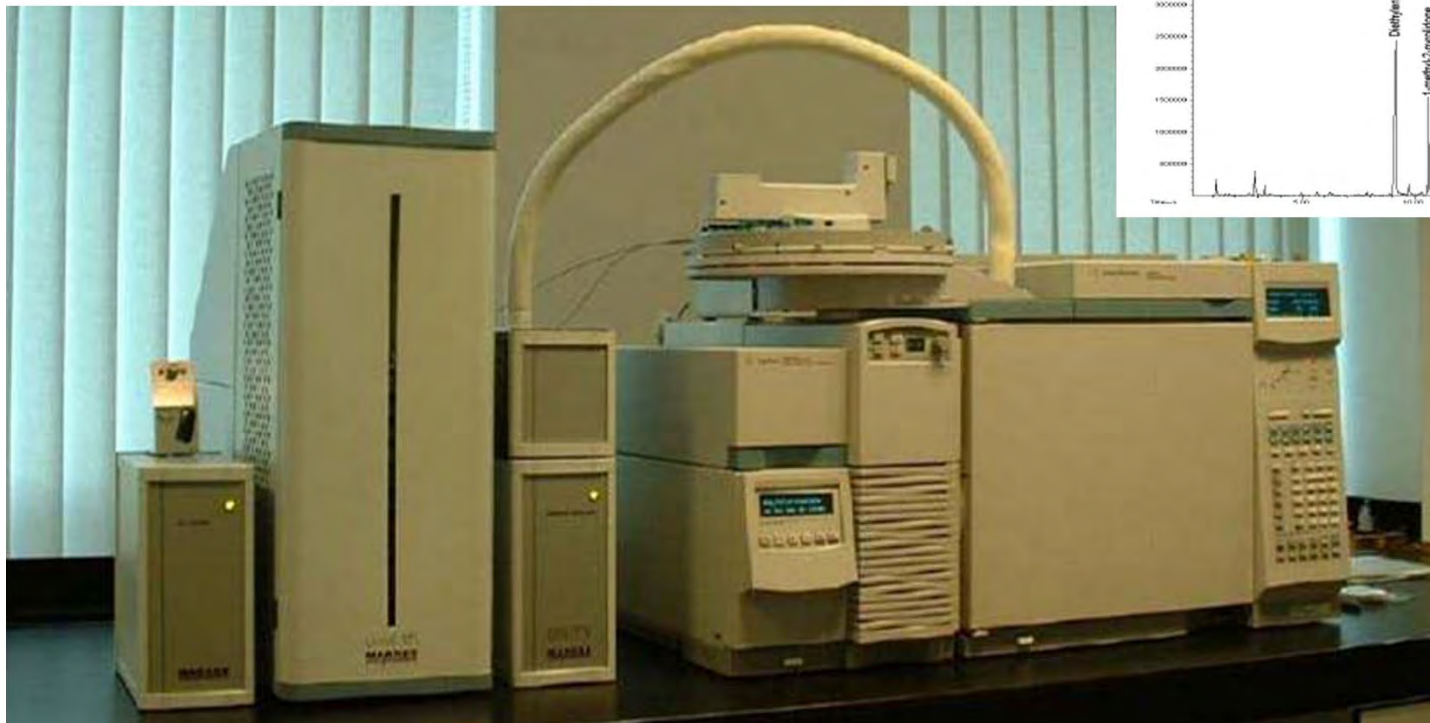
Emission of Dangerous Substances



EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements

Emission of Dangerous Substances



EN 14904

Indoor Flooring Systems for Multipurpose use
Essential requirements

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Emission of Dangerous Substances



**The whole System
has to be
tested and classified !**

Test Report No. 411828-03

Emission testing within the scope of a National Technical Approval (abZ) for construction products - approval testing –

1 Procedure

We received the order to test a sample of the construction product mentioned below. Individual results as well as type and extent of the tests are summarized in the annexes.

DIBt reference number

Test order Approval testing

Construction product tested CONIPUR CE pure floor covering
 (coating system into the stainless steel tub)

Sample designation CONIPUR CE pure

Customer BASF Construction Chemicals Europe AG

Order date 09.11.2011

Your reference Jürgen Widler

Report designed by Dipl.-Ing. Gerd Bittner, direct dial -213

Defined System with defined Products

2 Brief description of the sample material

Product name CONIPUR CE pure floor covering
 Denomination of the product floor covering (coating system into the stainless steel tub)
 Description of the construction product^a PUR foam sandwich
 birch plywood
 Collano 1K Isocyanat-wood adhesive
 Conipur 111 (PUR-adhesive)
 Greiner PKR 310
 Conipur 220 (levelling compound)
 Conipur 224 (N) (PUR-Coating)
 Conipur 224 (N) (PUR-Coating)
 Conipur 3200 W (sealing)
 Sampling performed by the customer
 (Protocoll making testspecimen)
 Date of production 28.10.2011 – 07.11.2011
 TFI reference no. 11-11-0082

^a Customer's information

3 Summary of the test results

The tested sample of the construction product mentioned above fulfils in every particular the requirements of DIBt in view of its emissions (results and comments cf. Annex E).

The present report does not replace any National Technical Approval within the scope of a building control procedure.

4 Annexes

The individual results as well as type and extent of the tests can be found in the following annexes:

Analyzing sheet of DIBt ADAM 411828-03
 Emission measurements^a E 411828-03
 Protocol making testspecimen

The annexes marked^a are based on tests accredited according to EN ISO/IEC 17025.

Aachen, 23.01.2012



Ernst Schröder
 Dr. Ernst Schröder

EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements

Emission of Dangerous Substances



Emission of formaldehyde

When formaldehyde-containing materials have been added to the product as a part of the production process, the product shall be tested and classified into one of two classes:

E1 or E2

NOTE Products of Class E1 can be used without causing an indoor air concentration greater than $0,1 \times 10^{-6}$ mg/kg (0,1 ppm) of formaldehyde.

The test requirement does not apply to sports floor systems to which no formaldehyde-containing materials were added during production or post-production processing.

These need not be classified, but may, without any testing, be declared as Class E1.

Emission of pentachlorophenol

Sports floor systems shall not contain pentachlorophenol or a derivative thereof as a component in the production process of the product or of its raw materials. In cases where verification is required, if the content is less than 0,1 % by mass by the method described in Annex C, this requirement shall be considered to be met.

EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements

 **BASF**
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Friction

EN 14904

Indoor Flooring Systems for Multipurpose use

Essential requirements

Test methods



Artificial Athlete Stuttgart

Triple A-Method

EN 14904

Indoor Flooring Systems for Multipurpose use
Essential requirements

BASF
The Chemical Company

**Type of test method
still under discussion**

EN 14904

Indoor Flooring Systems for Multipurpose use
Essential requirements

BASF
The Chemical Company

Shock Absorption

EN 14904

Indoor Flooring Systems for Multipurpose use Essential requirements

Test methods



Pendulum
EN 13036-4



Artificial Athlete Berlin
DIN 18032-2

EN 14904

Indoor Flooring Systems for Multipurpose use
Essential requirements



**Type of test method
still under discussion**

EN 14904

Indoor Flooring Systems for Multipurpose use



**Construction
Products
Directive (CPD)
and CE-Marking**

Construction Products Directive (CPD) and CE-Marking & Labelling

CPD

Construction Products Directive

Construction Products Directive (CPD)

Art. 1 CPD

(1) This Directive shall apply to construction products in so far as the essential requirements in respect of construction works under Article 3 (1) relate to them.

(2) For the purposes of this Directive, 'construction product' means any product which is produced for incorporation in a permanent manner in construction works, including both buildings and civil engineering works

Construction Products Directive (CPD) and CE-Marking & Labelling

CPD

Construction Products Directive

Construction Products Directive (CPD) ESSENTIAL REQUIREMENTS

*The products must be suitable for construction works which
“satisfy the following essential requirements “*

- 1. Mechanical resistance and stability**
- 2. Safety in case of fire**
- 3. Hygiene, health and the environment**
- 4. Safety in use**
- 5. Protection against noise**
- 6. Energy economy and heat retention**

Construction Products Directive (CPD) and CE-Marking & Labelling

CE-Marking & Labelling

Construction Products Directive (CPD) and CE-Marking & Labelling

CE-Labelling – EN 14904

Scope and relevant clauses

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

The clauses shown in this annex meet the requirements of the mandate given under the EU **Construction Products Directive (89/106)**.

Compliance with these clauses confers a presumption of fitness of the construction product covered by this European Standard for its intended use(s) under the mandate; reference shall be made to the information accompanying the CE marking.

Construction Products Directive (CPD) and CE-Marking & Labelling



CE-Labelling – EN 14904

Background

General:

The CE-label is a label under EU law for certain products in relation to product safety. By affixing the CE marking, the manufacturer confirms that the product complies with current European directives. The CE marking is a kind of passport for the European market.

Sports Products:

The safety that all the "Sports" products for gymnasiums, ranging from the production of the product to the processing on site correspond with the data defined in the initial testing.

Construction Products Directive (CPD) and CE-Marking & Labelling

Systems of attestation of conformity

*For products/materials which have been improved during the production with a fire retardant, system 1 shall always be applied.

** In all other cases where reaction to fire testing is necessary, system 3 shall be applied.

System 1
Flame retardants in the System

System 3
No flame retardants in the System

Construction Products Directive (CPD) and CE-Marking & Labelling

System 3 No flame retardants in the System

Table ZA.3b – Assignment of evaluation of conformity tasks for sports floor coverings (for system 3)

Tasks		Content of the task	Evaluation of conformity clauses to apply
Tasks under the responsibility of the manufacturer	Factory production control (FPC)	Parameters related to all characteristics of Table ZA.1 relevant for the intended end use	6.3
	Sampling and initial type testing by the manufacturer	All characteristics of Table ZA.1 relevant for the intended end use, except those shown below	6.2
	Sampling and initial type testing by the notified test laboratory	Reaction to fire in classes A1 _{fl} **, A2 _{fl} **, B _{fl} **, C _{fl} **, D _{fl} and E _{fl}	6.2
**See Footnote ** to Table ZA.2.			

Essential characteristics
Friction
Durability
Reaction to fire
Shock absorbency
Release of dangerous substances

Construction Products Directive (CPD) and CE-Marking & Labelling



CE-Labelling – EN 14904

System 3
No flame retardants in the System

Initial Test

Essential characteristics
Friction
Durability
Reaction to fire
Shock absorbency
Release of dangerous substances



CONIPUR 224 (N)

Product: Two component, solvent free, self leveling PUR coating **CONIPUR 224 (N)**
System: Point Elastic Indoor Sports Surfacing System **CONIPUR HG**

Properties	Regulations	Certificate	Demand	Result
Friction ¹	EN 13036-4	6959-EN/Koligl	80 - 110	97
Durability ¹	N EN 1569	6959-EN/Koligl	1500 N	1500 N
Reaction to fire ²	EN 13501-1	CSTB RA 04-0456B		Br-s1
Shock absorbency ¹	% EN 14808	6959-EN/Koligl	25-75 %	31 %
Release of dangerous substances ³	There are no formaldehyde and PCP-containing materials used			

¹ Measurement in the CONIPUR HG System 10+2 mm

² Product measurements CONIPUR 224 (N)

³ Internal confirmation of harmlessness

Datum / Visum: 27.04.2010 / Wi (V2)

Construction Products Directive (CPD) and CE-Marking & Labelling



CE-Labeling – EN 14904

System 3
No flame retardants in the System

CE-Declaration



EU-Declaration of Conformity

The manufacturer

BASF Construction Chemicals Europe AG
Division Conica Technik
Industriestrasse 26
CH-8207 Schaffhausen

Declares, in accordance with § 9 of the construction products law (implementing the council directive 89/106), that the synthetic resin screed/ coating

CONIPUR 224 (N)

Produced at the plant in Schaffhausen

allowing for the set-up described in the enclosed product information, complies with the provisions of EN 14904: 2006. It also fulfils the prerequisites for a CE-marking according to the attachment ZA.1 EN 14904: 2006.

CONIPUR 224 (N) was classified at the CSTB regarding the EN 13501-1 as B₁-s1 (No.RA04-0456B).

The product is subject to internal production supervision in accordance with EN 13813: 2002.

Schaffhausen, 28.05.2009


Dr. Ralph Bergs
Head of Development and Product Safety


Annex:
Technical data sheet CONIPUR 224 (N)
Technical system data sheet

Construction Products Directive (CPD) and CE-Marking & Labelling

CE-Labeling – EN 14904

System 3
No flame retardants in the System

Tested parameters shown in the Technical Bulletin

	
BASF Construction Chemicals Europe AG	
07	
EN 14904: 2006	
PUR coating for indoor sports surfaces	
Reaction to fire:	Class B_s-s1 CONIPUR 224 (N) (EN 13501-1, CSTB RA 04-0456B)
Friction:	97 μ (EN 13036-4) tested with CONIPUR HG surfacing system 10+2 mm (IST 6959-EN/Kol/gf)
Force reduction:	31 % (EN 14808) tested with CONIPUR HG surfacing system 10+2 mm (IST 6959-EN/Kol/gf)
Shock absorbency:	8 Nm % (EN 1517) tested with CONIPUR HG surfacing system 10+2 mm (IST 6959-EN/Kol/gf)
Release of dangerous substances:	Class E1

Construction Products Directive (CPD) and CE-Marking & Labelling



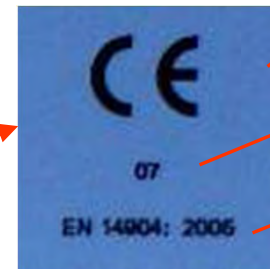
CE-Labeling – EN 14904

System 3
No flame retardants in the System



CONIPUR 224 (N)

Comp A
CA.RAL 6019



CE-Label

Year of identification: 2007

Reference to EN 14 904-normalization



Art.: 56315033
Lot: Muster

Uvodna navodila / See before / Data prima d' utilizarea optinilor /
Tecnische Merkblätter / Use carefully / Usare attentamente prima di / Utilizzare mi-
nimo solo / De utilizarse preferentemente antes de / And always wear
appropriate PPE when / Toujours porter sa / Always wear sa / Always wear
sa / Always wear

04.2014

23,3 kg net

Technische Merkblätter und Sicherheitsdatenblätter beachten



CONICA
sports surfaces
BASF Construction
Chemicals Europe AG
Division CONICA Technik
Industriestrasse 25
CH-8207 Schaffhausen
Tel.: +41 58 958 2525
www.conica.baef.com

Construction Products Directive (CPD) and CE-Marking & Labelling

System 1 Flame retardants in the System

Table ZA.3a – Assignment of evaluation of conformity tasks for sports floor coverings (for system 1)

Tasks	Content of the task	Evaluation of conformity clauses to apply
Tasks under the responsibility of the manufacturer	Factory production control (FPC)	Parameters related to all characteristics of Table ZA.1 relevant for the intended end use
	Further testing by the manufacturer of samples taken at factory	All characteristics of Table ZA.1 relevant for the intended end use
	Initial type testing by the manufacturer	All characteristics of Table ZA.1 relevant for the intended end use, except reaction to fire in the classes below
Tasks under the responsibility of the notified product certification body	Sampling and initial type testing	Reaction to fire in classes A1 _{fl} *, A2 _{fl} *, B _{fl} * and C _{fl} *
	Initial inspection of factory and of FPC	Parameters related to all characteristics of Table ZA.1 relevant for the intended end use, in particular: reaction to fire in classes A1 _{fl} *, A2 _{fl} *, B _{fl} * and C _{fl} *
	Continuous surveillance, assessment and approval of FPC.	Parameters related to all characteristics of Table ZA.1 relevant for the intended end use, in particular: reaction to fire in classes A1 _{fl} *, A2 _{fl} *, B _{fl} * and C _{fl} *

Analogous to System 3

Additionally, annual monitoring from a notified body

*See Footnote * to Table ZA.2.

Construction Products Directive (CPD) and CE-Marking & Labelling



System 1 Flame retardants in the System



CE-Certificate from a notified body

CE - CERTIFICATE OF CONFORMITY 1658-CPD-1173

In compliance with the Directive 89/105/EEC of the Council of European Communities of 21 December 1986 on the approximation of laws, regulations and administrative provisions of the Member States relating to the construction products (Construction Products Directive - CPD), amended by the Directive 93/68/EEC of the Council of European Communities of 22 July 1993, it has been stated that the construction products of the group

CONIPUR HG protect+

[CONIPUR 3260W / CONIPUR 67, CONIPUR 324 FL, CONIPUR 320 FL, CONIPUR 111;
Regupol 6015 / Regupol 8010 / Regupol 3512 / Kraiburg Premium]

with the following product characteristics



glued on massive, mineral concrete (gross density $\geq 1350 \text{ kg/m}^3$)

placed into circulation by

BASF Construction Chemicals Europe AG
Industriestrasse 26
8207 Schaffhausen
Schweiz

and produced in the factory of
8207 Schaffhausen / Schweiz

are submitted by the manufacturer to a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that an initial type-testing for the relevant characteristics of the products, the initial inspection of the factory and of the factory production control has been accomplished. Continuous surveillance, assessment and approval of the factory production control is performed.

This certificate attests that all provisions concerning the attestation of conformity and the performances described in Annex ZA of the standard

EN 14904:2006

were applied and that the products fulfil all the prescribed requirements.

This certificate was first issued on 17.03.2011 and remains valid as long as the conditions laid down in EN 14904:2006 or the manufacturing conditions in the factory or in the factory production control itself are not modified significantly. The present certificate of conformity replaces the version dated 09.05.2009

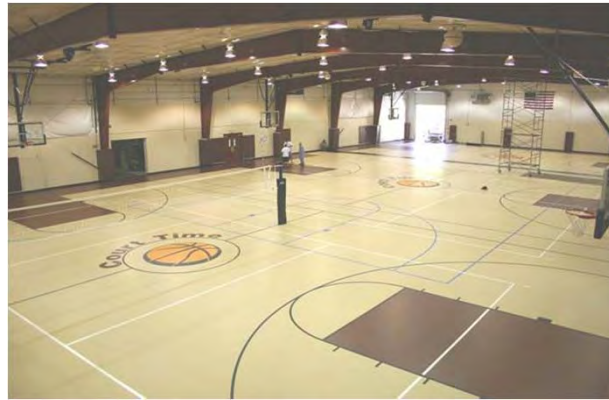
Aachen, 24.03.2011



ppa. Dr. Jens-Christian Winkler

THANK YOU

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The Chemical Company



CONICA - Your professional partner!