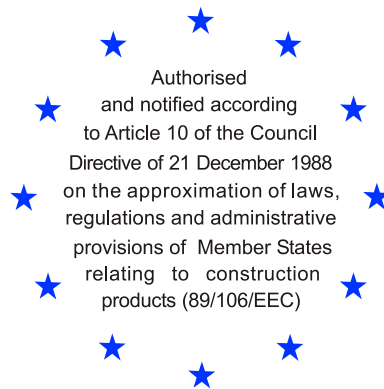


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European Technical Approval ETA-13/0458

Handelsnamn

Trade name

Illigo Våtrumssystem

Innehavare

Holder of approval

Illigo AB

Karavellgatan 32

S-531 73 Källby

Sweden

Produktbeskrivning och avsedd användning

Byggsats för vattentäta skikt för väggar och golv i våtrum.

Generic type and use
of construction product

Watertight covering kits for wet room walls and floors.

Giltighetstid

Validity:

från

from

t o m

to

2013-06-26

26.06.2013

2018-06-25

24.06.2018

Tillverkningsställe

Manufacturing plant

Nitto Europe NV, Genk, Belgium

Godkännandet innehåller

This Approval contains

10 Sidor inklusive bilagor

10 Pages including annexes



I LEGAL BASIS AND GENERAL CONDITIONS

1. This European Technical Approval is issued by SITAC in accordance with:
 - Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹, modified by Council Directive 93/68/EEC² and Regulation (EC) N° 1882/2003 of the European Parliament and of the Council³
 - Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex of Commission Decision 94/23/EC⁴.
 - Guideline No 022 for European Technical Approval of Watertight covering kits for wet room floors and or walls, Part 2 Kits based on flexible sheets Edition April 2011.
2. SITAC is authorized to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant(s). Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.
3. This European Technical Approval is not to be transferred to manufacturers or agents of manufacturers other than those indicated on page 1, or manufacturing plants other than those indicated on page 1 of this European Technical Approval.
4. This European Technical Approval may be withdrawn by SITAC, in particular pursuant to information by the Commission according to Article 5(1) of Council Directive 89/106/EEC.
5. Reproduction of this European Technical Approval including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of SITAC. In this case partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European Technical Approval.
6. The European Technical Approval is issued by the approval body in English. Translations into other languages have to be designated as such.

¹ Official Journal of the European Communities N° L 40, 11.2.1989, p. 12

² Official Journal of the European Communities N° L 220, 30.8.1993, p. 1

³ Official Journal of the European Union N° L 284, 31.10.2003, p. 25

⁴ Official Journal of the European Communities N° L 17, 20.1.1994, p. 34

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of products and intended use

1.1 Definition of the construction kit

Illigo Våtrumssystem is a flexible sheet membrane kit which serves as a watertight covering for wet room floors and walls beneath a wearing surface.

The kit is constructed as follows:

Around the room in the floor angle a primer, should be applied.

Reinforcement of inner and outer corners, around pipe penetrations, floor gullies and along the connection between floor and wall should be done.

Illigo vägg- och golvdruk is adhered to the substrate. The jointing is made by mounting the membrane, edge to edge, and sealing the joint with a joint sealing strip.

Ceramic tiles are adhered to the kit with cement based tile adhesive.

Membrane

Illigo vägg- och golvdruk is a membrane consisting of an inner layer of polyolefine foam with outer layer of acrylic adhesive. The thickness of the membrane intended for floors is 1,0 mm and the thickness of the membrane intended for walls is 1,5 mm.

Reinforcement

The reinforcements and sealing components belonging to the kit is Illigo skarvremsa for joints, Illigo golv/väggremsor for the connection between floor and wall, Illigo Inåtgående hörn for inner corners, Illigo Utåtgående hörn for outer corners, Illigo Rörmanschetter for pipe penetrations and Illigo Brunnsmanschett for floor gullies. The reinforcements are not intended to cover the entire floor and wall covering, but are used over joints and in corners and around pipe penetrations. All joints and reinforcement components should be sealed with Illigo Membran a liquid applied membrane.

Associated components and Adhesives

Primer covered by this ETA is:

Ardex P51 or Weber Floor 4761.

Adhesives covered by this ETA is:

Ardex X77, Maxi Serpo Multi flex 610 and Weber.set 610 Multi DR, all cement based tile adhesive.

1.2 Intended use

Water tight covering of wet room walls and floors with additional wearing surface.

The covering may be used on substrates of boards (e.g gypsum boards, fiber cement boards) or concrete, i.e. moisture sensitive substrates which are flexible and with jointing and susceptible to cracking.

To be used in indoor applications, where the sheet based applied kit is not exposed to temperatures (i.e. temperature of structure) below 5 °C and above 40 °C, in the following uses:

- Wall and floor surfaces with only occasional direct exposure to water, e.g. at a good distance from shower or bathtub.
- Walls and floors in shower areas or around bathtubs used for a few showers daily, e.g. in ordinary dwellings, multi-family houses and hotels
- Wall and floor surfaces with exposure to water more frequent or of longer duration than normally anticipated in dwellings, e.g. public wet rooms, schools and sport facilities.

The provisions made in this European Technical Approval are based on an assumed working life of the Illigo Våtrumssystem of 25 years, provided that they are subject to appropriate installation, use and maintenance. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

2 Characteristics of products and methods of verification

2.1 ER 1 Mechanical resistance and stability

Not relevant.

2.2 ER 2 Safety in case of fire

2.2.1 Reaction to fire

According to Annex 1.

2.3 ER 3 Hygiene, health and environment

2.3.1 Release of dangerous substances

A written statement from the applicant has been provided and the product does not include any substances listed in the EU database.

Note:

In addition to the specific clauses relating to dangerous substances contained in this European Technical Approval, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Directive, these requirements need also to be complied with, when and where they apply.

2.3.2 Vapour permeability

Declared values are shown in Annex 1.

2.3.3 Moisture resistance

2.3.3.1 Water tightness

According to Annex 1.

2.3.3.2 Crack bridging ability

Assessment category according to Annex 1.

2.3.3.3 Bond strength

Assessment category according to Annex 1.

2.3.3.4 Scratching resistance

According to Annex 1.

2.3.3.5 Joint bridging ability

Assessment category according to Annex 1.

2.3.3.6 Water tightness around penetrations

Assessment category according to Annex 1.

2.3.3.7 Joint strength

Declared values according to Annex 1.

2.3.3.8 Flexibility

According to Annex 1.

2.4 ER 4 Safety in use

2.4.1 Slipperiness

Not relevant.

2.5 ER 5 Protection against noise

Not relevant.

2.6 ER 6 Energy economy and heat retention

Not relevant.

2.7 General aspects relating to fitness for use

2.7.1 Dimensional stability

Declared values according to Annex 1.

2.7.2 Resistance to temperature

According to Annex I.

2.7.2 Resistance to water

Assessment category according to Annex 1.

2.7.3 Resistance to alkalinity

Assessment category according to Annex 1.

2.7.4 Resistance to chemical agents

No performance determined.

2.7.5 Resistance to biological agents

No performance determined.

2.7.6 Resistance to mechanical wear

No performance determined.

2.8 Serviceability

2.8.1 Cleanability

Assessment degree according to Annex 1.

2.8.2 Reparability

No performance determined.

2.8.3 Thickness

Declared values according to Annex 1.

2.8.4 Applicability

According to Annex 1.

3 Evaluation and attestation of conformity and CE marking

3.1 System of attestation of conformity

According to the Decision 2003/655/EC, dated 2003-09-17 of the European Commission⁵ system 2+ of the attestation of conformity applies.

System 2+: Declaration of conformity of the product by the manufacturer on the basis of:

(a) Tasks for the manufacturer:

- (1) initial type-testing of the product;
- (2) factory production control;
- (3) testing of samples taken at the factory in accordance with a prescribed test plan.

(b) Tasks for the approved body:

- (4) certification of factory production control on the basis of:
 - initial inspection of factory and of factory production control;
 - continuous surveillance, assessment and approval of factory production control.

Note: Approved bodies are also referred to as "notified bodies".

3.2 Responsibilities

3.2.1 Tasks for the manufacturer

3.2.1.1 Factory production control

The manufacturer shall exercise permanent internal control of production. 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, including records of results performed. This production control system shall insure that the product is in conformity with this European Technical Approval.

⁵ Official Journal of the European Communities L 231/12 of 17.09.2003.

The factory production control shall be in accordance with the Control plan which is part of the technical documentation of this European Technical Approval. The control plan is laid down in the context of the factory production control system operated by the manufacturer and deposited within SITAC.⁶

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the "control plan".

3.2.1.2 Other tasks for the manufacturer

The manufacturer shall, on the basis of a contract, involve a body which is approved for the tasks referred to in section 3.1 in the field of the kit in order to undertake the actions laid down in section 3.3. For this purpose, the "control plan" referred to in sections 3.2.1.1 and 3.2.2 shall be handed over by the manufacturer to the approved body or bodies involved.

The manufacturer shall make a declaration of conformity, stating that the construction product is in conformity with the provisions of this ETA.

3.2.2 Tasks for the approved bodies

The approved body (bodies) shall perform the

- initial inspection of factory and of factory production control
- continuous surveillance, assessment and approval of factory production

in accordance with the provisions laid down in the "control plan".

The approved body shall retain the essential points of its actions referred to above and state the results obtained and conclusions drawn in a written report.

The approved certification body involved by the manufacturer shall issue an EC certificate of conformity of the factory production control stating the conformity with the provisions of this European Technical Approval.

In cases where the provisions of the European Technical Approval and its "control plan" are no longer fulfilled the certification body shall withdraw the certificate of conformity and inform the SITAC without delay.

3.3 CE marking

The CE marking shall be affixed on the packaging by means of a label.

The letters CE shall be followed by the identification number of the approved certification body, where relevant, and be accompanied by the following additional information:

- the name and address of the producer (legal entity responsible for the manufacture),
- the last two digits of the year in which the CE marking was affixed,
- the number of the EC certificate for the factory production control,
- the number of the European Technical Approval,
- the number of the guideline for European Technical Approval (ETAG 022)

⁶ The "control plan" is a confidential part of the European Technical Approval and only handed over to the approved body or bodies involved in the procedure of attestation of conformity. See section 3.2.2.

4 Assumptions under which the fitness of the product(s) for the intended use was favourably assessed

4.1 Manufacturing

The manufacturer may only use materials stated in the Manufacturers Technical Dossier (MTD).

The European Technical Approval is issued for the product on the basis of agreed data/information, deposited with SITAC, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to SITAC before the changes are introduced. SITAC will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

4.2 Design and dimensioning

The fitness for the respective use of the watertight membrane results from the characteristic values and categories.

The supplementing statements of the manufacturer stated in the MTD for design and application of the watertight system for creating a watertight covering under wearing surface for walls in indoor wet areas shall be considered.

4.3 Installation

The fitness for use of the watertight membrane can be assumed only, if the installation is carried out according to the installation instructions stated in the MTD by the manufacturer.

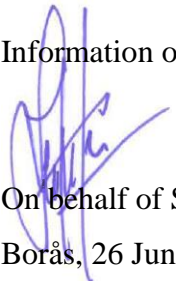
Associated components that are part of the kit (e.g. adhesives) are specified in Annex 1.

4.4 Packaging, transport and storage

Information on packaging, transport and storage are given in the MTD.

4.5 Use, maintenance, repair

Information on maintenance and repair are given in the MTD.



On behalf of SITAC

Borås, 26 June 2013

Lennart Månsson

ANNEX 1 to ETA-13/0458**Product description**

Watertight covering kits for wet room walls.

- Water tight sheet, for walls.
- Water tight sheet, for floors.
- Sealing tape applied as a joint sealer.
- Corner sealing tape.
- Ingoing corner.
- Outgoing corner.
- Gully sleeve 400 x400 mm.
- Stosset sleeve coupling, pipe sealer. 10-135 mm
- Liquid applied Membrane
- Primer Weber Floor 4716 or Ardex P51.

Additional wearing surface:

- Maxit Serpo Multi Flex 610 or Ardex X77, adhesive for the ceramic tiles.
- Ceramic tiles. (Not part of the kit.)

Charateristics

	Wall sheet 1,5 mm	Floor sheet 1,0 mm
Reaction to fire	NPD (Class F)	NPD (Class F)
Release of dangerous substances	No content	No content
Water vapour permeability (EN ISO 12572 annex E)	1 205 000 s/m $S_d = 32,2$ m	1 160 000 s/m $S_d = 30,8$ m
Water tightness	Watertight (150kPa/7 Days)	Watertight (150kPa/7 Days)
Crack bridging ability	Category 3	Category 3
Bond strength (the sheet forms the wearing surface)	Not relevant	Not relevant
Bond strength (additional wearing surface of tiles)	Category 1 (0,1 MPa), Substrate: gypsum wallboard	Category 1 ($\geq 0,2$ MPa), Substrate: concrete
Scratching resistance	Not relevant	Not relevant
Joint bridging ability	Category 2 (2 mm)	Category 2 (2 mm)
Water tightness around penetrations	Category 2 Watertight	Category 2 Watertight
Joint strength	58 N/50mm	58 N/50mm
Flexibility	No cracks or other damage	No cracks or other damage
Slipperiness	Not relevant	Not relevant
Dimensional stability	MD -1,11% CD -0,13 %	MD -1,11% CD -0,13 %
Resistance to temperature	Pass (<20% change)	Pass (<20% change)
Resistance to water	Category 1 ($\geq 0,2$ MPa)	Category 1 ($\geq 0,2$ MPa)
Resistance to alkalinity	Category 2	Category 2
Resistance to chemical agents	NPD	NPD
Resistance to biological agents	Not relevant	Not relevant

Resistance to mechanical wear	Not relevant	Not relevant
Cleanability	Not relevant	Not relevant
Repairability	NPD	NPD
Thickness	Mean 1,51 mm	Mean 1,07 mm
Applicability	Applicable	Applicable

* MD = Machine direction

CD = Cross direction