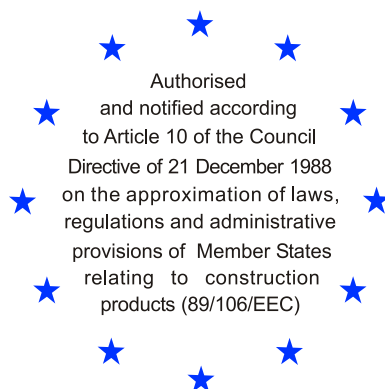


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Europeiskt Tekniskt Godkännande ETA-13/0494 European Technical Approval

Handelsnamn

Trade name

Innehavare

Holder of approval

Produktbeskrivning och avsedd användning

Generic type and use of construction product

Giltighetstid

Validity:

från
from
t o m
to

Detta ETA ersätter:

This ETA replaces:

Tillverkningsställe

Manufacturing plant

Tubus System

Tubus System

WBF Invest AB

Designvägen 3

435 33 Mölnlycke, Sweden

System för renovering av spillvattenrör med glasförstärkt polyester inom och utom byggnad

Waste water pipe renovation with inner coating of glass flake reinforced polyester compound, for use inside and outside buildings.

2013-06-26

26.06.2013

2018-06-16

16.06.2018

ETA-13/0494, giltigt från 2013-06-17 till 2018-06-16

ETA-13/0494, validity, from 17.06.2013 to 16.06.2018

According to Annex 3 kept by SITAC

Godkännandet innehåller

This Approval contains

11 Sidor inklusive bilagor

11 Pages including annexes



I LEGAL BASES 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 to Commission Decision 94/23/EC⁴;
- 2 SITAC is authorized to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant. 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/ laid down in the context/ 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- 4 This European Technical Approval may be withdrawn by SITAC, in particular pursuant to information by the Commission according to Article 5(1) of Council Directive 89/106/EEC.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. This version corresponds fully to the version circulated within EOTA. 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

The system “Waste water pipe renovation with inner coating of glass flake reinforced polyester compound, for use inside and outside buildings is hereinafter called “Waste water pipe renovation system”.

Assessment of the Mechanical resistance and stability of the existing pipes is under the responsibility of the client.

System:

Components:

Glass flake reinforced polyester.

Plastic sleeve.

The system is a method for renovating existing sewage piping systems made from cast iron and/or plastic materials for use inside and outside buildings. After cleaning and inspection, any holes in the existing pipe could be tightened permanently with plastic sleeves. Three coats of glass flake reinforced polyester compound are applied, to the inner surface of the pipe, through a spraying nozzle. The result is a new inner lining, with a thickness of 3-5 mm. The new relining layer system is self-supporting when it has cured.

The entire process is performed under camera monitoring.

The system is applicable for circular pipes with dimensions 50 – 225 mm.

Pictures of the installed “Waste water pipe renovation system” are shown in Annex 2.

1.2 Intended use

This construction product is applicable to a system for domestic waste water and rainwater pipe renovation. (Definitions according to EN 12056)

Renovating of existing sewage systems made from cast iron and/or plastics materials for use inside and outside buildings. Outside buildings means buried pipes between the buildings sewer system and the manhole as connection point to the public sewer system.

The kit is applicable for non-pressure sewerage networks.

The intended use for the kits is mainly residential buildings. The kit may also be used for other applications when the performance requirements are about the same as for residential buildings.

The system is applicable for circular pipes with dimensions 50 – 225 mm.

The provisions made in this European Technical Approval are based on an assumed working life of the Waste water pipe renovation system of 50 years, provided that the conditions laid down in sections 4.1, 4.2 and 5.1 for the manufacturing, packaging transport storage and installation are met. 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 Mechanical resistance and stability (ER1)

Mechanical resistance is considered under ER4 Safety in use.

2.2 Safety in case of fire (ER2)

2.2.1 Reaction to fire

Declared values are shown in Annex 1.

Note:

If the kit is to be used in pipes crossing building parts with requirements to fire resistance, the verification of resistance to fire shall be made according to national regulations.

2.3 Hygiene, Health and the Environment (ER3)

2.3.1 Content and/or release of dangerous substances.

The product does include the following substance listed in the EU database.

Naphta (petroleum) – cas no. 64742-82-1 in concentration < 0,1%.

A written statement from the applicant has been provided and the product does not include any other 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 Water tightness

According to Annex I.

2.4 Safety in use (ER4)

2.4.1 Short term ring stiffness

No Performance Determined

2.4.2 Bending test, (Flexural strength)

According to Annex I.

2.5 Protection against noise (ER5)

Not relevant.

2.6 Energy economy and heat retention (ER6)

Not relevant.

2.7 General aspects relating to fitness for use

2.7.1 Durability of materials

According to Annex I.

2.7.2 Surface finish

According to Annex I.

2.7.3 Abrasion resistance

No Performance Determined

3 Evaluation and attestation of conformity and CE marking

3.1 System of attestation of conformity

According to the decision 1999/472/EC⁵ as amended by 2001/596/EC⁶ of the European Commission the system 4 of attestation of conformity applies.

In addition, according to the Decision 1999/472/EC⁷ by the European Commission amended by the Decision 2001/596/EC⁸ the system 3 of attestation of conformity applies with regard to reaction to fire.

This system of attestation of conformity is defined as follows:

System 3: Declaration of conformity of the product by the manufacturer on the basis of:

- (a) Tasks for the manufacturer:
 - (1) factory production control;
- (b) Tasks for the approved body:
 - (2) initial type-testing of the product.

System 4: Declaration of conformity of the product by the manufacturer on the basis of:

Tasks for the manufacturer:

- (1) initial type-testing of the product;
- (2) factory production control.

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

⁵ Official Journal of the European Communities L 184 of 17.07.1999

⁶ Official Journal of the European Communities L 209 of 02.08.2001

⁷ Official Journal of the European Communities L 184 of 17.07.1999

⁸ Official Journal of the European Communities L 209 of 02.08.2001

3.2 Responsibilities

3.2.1 Tasks of 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.

The manufacturer may only use raw materials stated in the technical documentation of this European Technical Approval.

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 with SITAC.⁹

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

In the case of system 3:

The manufacturer shall, on the basis of a contract, involve a body (bodies) which is (are) approved for the tasks referred to in section 3.1 in the field of "Waste water pipe renovation system" in order to undertake the actions laid down in section 3.2.2. 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.

In all cases:

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

3.2.2 Tasks for the approved bodies

The approved body (bodies) shall perform the

- initial type-testing of the product for system 3.

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

⁹ 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.

3.3 CE marking

The CE marking shall be affixed on the packaging. 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,
- the last two digits of the year in which the CE marking was affixed,
- the number of the European Technical Approval,
the reaction to fire class
- the dangerous substances if any

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

4.1 Manufacturing

The European Technical Approval is issued for the product on the basis of agreed data/information, deposited with SITAC, which identifies the kit that has been assessed and judged. Changes to the kit 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 approval and consequently the validity of the CE marking on the basis of the approval and if so whether further assessment or alterations to the approval, shall be necessary.

4.2 Installation

A general manual for the installation of the kit in the works is available from the manufacturer, and has been assessed by the approval body.

The installation manual covers all installation aspects for the kits, including:

- Inspection
- Cleaning
- Reparations
- Spraying
- Inspection

The installation is made by educated and “approved” personnel.

The manufacturer has the responsibility to only use personnel that has adequate education and training.

5 Indications to the manufacturer

5.1 Packaging, transport and storage

Detailed information is provided by the manufacturer.

On behalf of SITAC

Borås, 26.06.2013

A handwritten signature in blue ink, appearing to be 'Lennart Månsson', written over the printed name below.

Lennart Månsson

Annex 1 description of the systems characteristics

Characteristics of products and methods of verification according to section 2 in this ETA

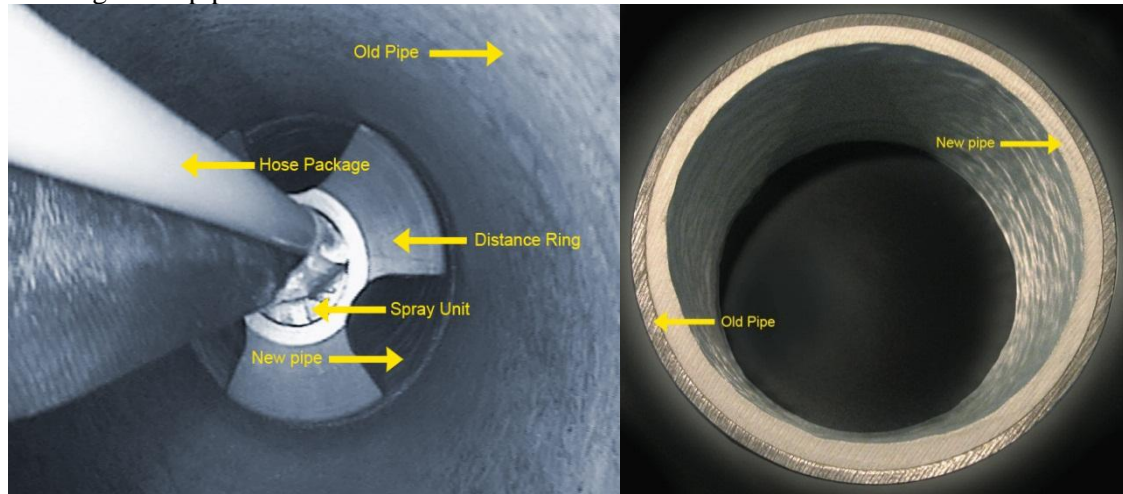
Characteristics

2.2.1 Reaction to fire	Class E
2.3.1 Release of dangerous substances	Se clause 2.3.1
2.3.2 Water tightness	Pass
2.4.1 Short term ring stiffness	NPD
2.4.2 Bending test, (Flexural strength)	56 kPa mean value
2.7.1 Durability of materials	Pass
2.7.2 Surface finish	Pass
2.7.3 Abrasion resistance	NPD

Annex 2 description of the system

Product description according to 1.1 in this ETA

Relining of old pipe



Repair of hole in old pipe by installation of plastic sleeve, photo 1 to 4 Photo No. 1

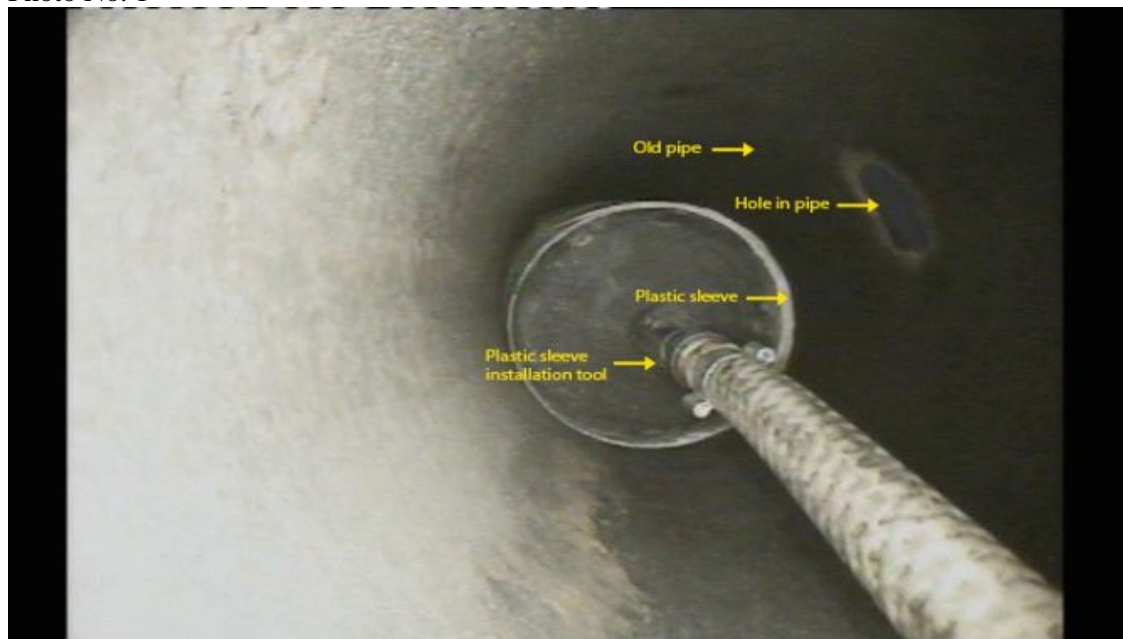


Photo No. 2

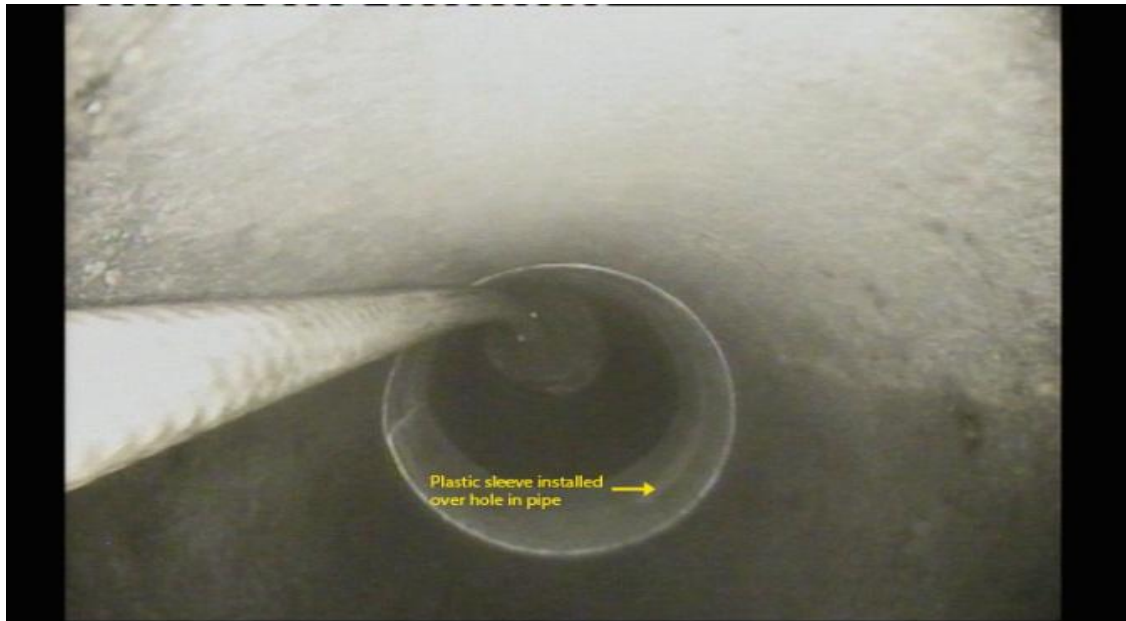


Photo No.3

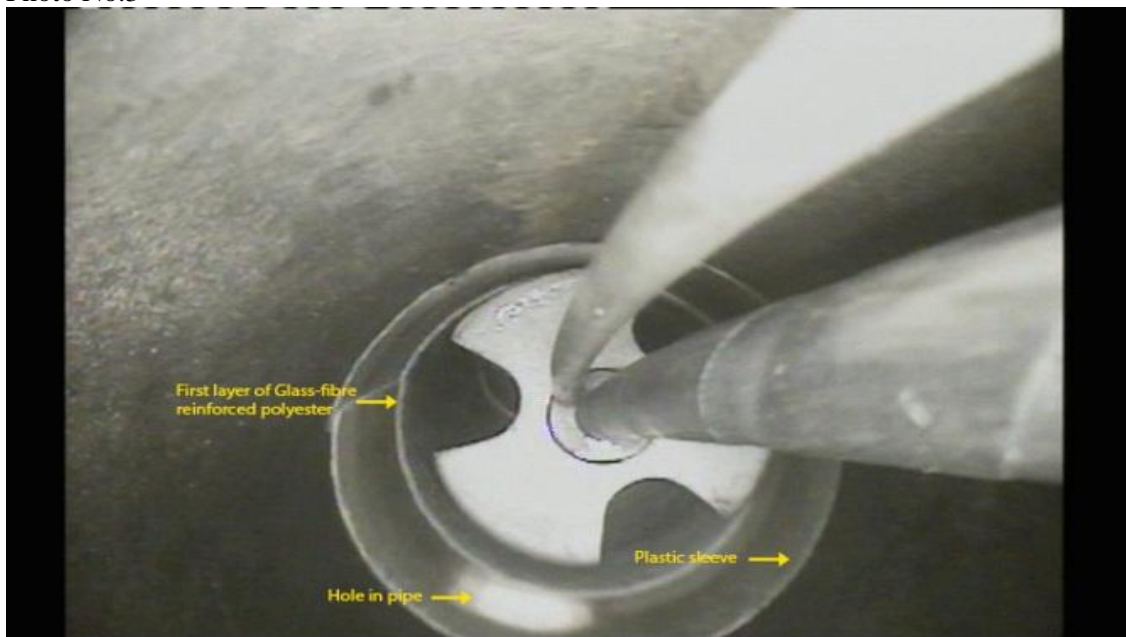


Photo No. 4

