



Approval body for construction products and types of construction

#### **Bautechnisches Prüfamt**

An institution established by the Federal and Laender Governments



# European Technical Assessment

# ETA-17/0030 of 16 January 2017

English translation prepared by DIBt - Original version in German language

#### **General Part**

Technical Assessment Body issuing the European Technical Assessment:

Trade name of the construction product

Product family to which the construction product belongs

Manufacturer

Manufacturing plant

This European Technical Assessment contains

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of Deutsches Institut für Bautechnik

PCI Pursol 640

Liquid applied roof waterproofing on the basis of polyurethane

PCI Augsburg GmbH Piccardstraße 11 86159 Augsburg DEUTSCHLAND

Produktionsanlage 861

7 pages including 2 annexes which form an integral part of this assessment

Guideline for European technical approval of "Liquid applied roof waterproofing kits", ETAG 005 Part 6: "Specific stipulations for kits based on polyurethane", used as European Assessment Document (EAD) according to Article 66 Paragraph 3 of Regulation (EU) No 305/2011.

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#### European Technical Assessment ETA-17/0030 English translation prepared by DIBt

Page 2 of 7 | 16 January 2017

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Page 3 of 7 | 16 January 2017

European Technical Assessment ETA-17/0030 English translation prepared by DIBt

#### Specific part

#### 1 Technical description of the product

The liquid applied roof waterproofing "PCI Pursol 640" is a kit, which consists of the components:

- Primer (if required),
- liquid applied roof waterproofing on the basis of a one-component reactive polyurethane,
- polyester fleece as reinforcement.

For an adequate adhesion of the waterproofing layer – depending on the type of substrate – a primer is required. In general the primer belonging to the substrate is given in the manufacturer technical documents<sup>1</sup>. In single cases the manufacturer is responsible to give guidance which pretreatment/primer is required.

Depending on the levels the minimum layer thickness of the roof waterproofing applied is 1.6 mm respectively 2.9 mm.

As an assembled system these components form a homogeneous seamless roof waterproofing. The components and the system build-up of the roof waterproofing "PCI Pursol 640" are given in Annex A.

#### 2 Specification of the intended use in accordance with the applicable EAD

The product is used for the waterproofing of roof surfaces against penetration of atmospheric water.

In the technical file the manufacturer give information concerning the substrates which the product is suitable for and on how these substrates shall be pre-treated.

The levels of use categories are given in Annex A.

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of working life of the product of 10 respectively 25 years. 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.

The levels of use categories and performances given in Section 3 are only valid if the liquid applied roof waterproofing is used in compliance with the specifications and conditions given in Annex B and the installation instructions of the manufacturer stated in the technical file.

## 3 Performance of the product and references to the methods used for its assessment

#### 3.1 Mechanical resistance and stability (BWR 1)

Not applicable

1

The manufacturer's technical documents comprises all information necessary for the production and the installation of the product as well as for repair of the roof waterproofing made from that and it is deposited with DIBt.



# **European Technical Assessment**

ETA-17/0030

## Page 4 of 7 | 16 January 2017

English translation prepared by DIBt

# 3.2 Safety in case of fire (BWR 2)

| Essential characteristic  | Performance |  |
|---------------------------|-------------|--|
| External fire performance | See Annex A |  |
| Reaction to fire          | See Annex A |  |

# 3.3 Hygiene, health and the environment (BWR 3)

| Essential characteristic                      | Performance  |
|---|--|
| Water vapour permeability                     | See Annex A  |
| Watertightness                                | See Annex A  |
| Release of dangerous substances               | The product does not contain dangerous substances specified in TR 034 (Version March 2012) |
| Resistance to mechanical damage (perforation) | See Annex A, Levels of use categories  |
| Resistance to plant roofs                     | See Annex A  |

# 3.4 Safety and accessibility in use (BWR 4)

| Essential characteristic | Performance |  |
|--------------------------|-------------|--|
| Resistance to wind loads | See Annex A |  |
| Slipperiness             | See Annex A |  |

# 3.5 Protection against noise (BWR 5)

Not applicable

## 3.6 Energy economy and heat retention (BWR 6)

Not applicable

# 3.7 Sustainable use of natural resources (BWR 7)

For the sustainable use of natural resources no performance was investigated for this product.

# 3.8 General aspects

The verification of durability and serviceability is part of testing the essential characteristics. Durability and serviceability is only ensured if the specifications of intended use according to Annex B and the specifications of the technical file of the manufacturer are kept.



# European Technical Assessment ETA-17/0030

Page 5 of 7 | 16 January 2017

English translation prepared by DIBt

# 4 Assessment and verification of constancy of performance (AVCP) system applied with reference to its legal base

According to Decision of the Commission of 12 October 1998 (98/599/EC) (OJ L 287 of 24.10.1998, p. 30), as amended by Decision of the Commission of 8 January 2001 (2001/596/EC) (OJ L 209 of 02.08.2001, p. 33), the system of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) given in the following table applies.

| Product                                   | Intended use  | Level or class         | System |
|---|---|------------------------|--------|
|   | For uses subject to external fire performance regulations     | B <sub>ROOF</sub> (t1) | 3      |
| Liquid applied roof<br>waterproofing kits | For uses subject to reaction to fire                          | E                      | 3      |
| waterprooning kits                        | All other roof waterproofing uses (all other characteristics) | _                      | 3      |

## Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 16 January 2017 by Deutsches Institut für Bautechnik

Uwe Bender Head of Department

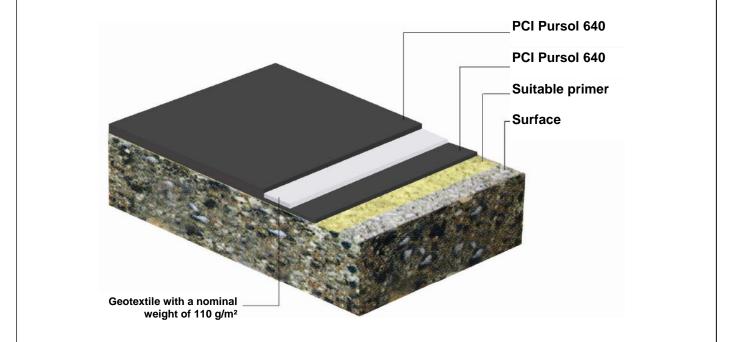
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## Page 6 of European Technical Assessment ETA-17/0030 of 16 January 2017

English translation prepared by DIBt





Applicable to the roof waterproofing "Pursol 640"

| Minimum layer thickness   |                           | 1.6 mm 2.9 mm                          |                       |  |
|---|---------------------------|--|-----------------------|--|
| minimum quantity consumed:  |                           | 2.4 kg/m <sup>2</sup>                  | 4.1 kg/m <sup>2</sup> |  |
| Levels of use categories according to ETAC                        |                           |  |                       |  |
| Working life:   |                           | W2 (10 years)                          | W3 (25 years)         |  |
| Climatic zones  |                           | M and S (moderate and severe climatic) |                       |  |
| Resistance to mechanical damage (perforation) (compressible       |                           | P1 to P3                               | P1 to P4              |  |
| and non-compressible substrates)                                  |                           | (from low to normal)                   | (from low to high)    |  |
| Roof slope  |                           | S1 to S4 (from < 5° to > 30°)          |                       |  |
| Lowest surface temperature  |                           | TL3 (-20 °C) TL4 (-30 °C)              |                       |  |
| Highest surface temperature                                       |                           | TH4 (90 °C)                            |                       |  |
| Use category related to BWR 3:                                    |                           | I/A 3, S/W 2                           |                       |  |
| Performance of the product:                                       |                           |  |                       |  |
| External fire performance   | EN 13501-5                | F <sub>ROOF</sub>                      |                       |  |
| Reaction to fire  | EN 13501-1                | E                                      |                       |  |
| Water vapour diffusion resistance factor $\mu$ $\mu \approx 1830$ |                           | 330                                    |                       |  |
| Watertightness  | htness pass               |  | S                     |  |
| Statement on dangerous substances see section 3                   |                           | on 3.3                                 |                       |  |
| tesistance to plant roots no performance determ                   |                           | e determined                           |                       |  |
| Resistance to wind loads  |                           | ≥ 50 kPa                               |                       |  |
| Resistance to slipperiness  | no performance determined |  | e determined          |  |

| PCI Pursol 640,  |
|------------------|
| PCI Ausburg GmbH |

System built up and classification

Annex A

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#### Installation

The levels of use categories and the performances of the roof waterproofing can be assumed only, if the installation is carried out according to the installation instructions stated in the technical file of the manufacturer, in particular taking account of the following points:

- installation by appropriately trained personnel,
- installation of only those components which are marked components of the kit,
- installation with the required tools and adjuvants,
- precautions during installation,
- inspecting the roof surface for cleanliness and correct preparation, if need be, applying a primer before applying the product,
- inspecting compliance with suitable weather and curing conditions,
- ensuring a thickness of the cured waterproofing of at least 1.6 mm respectively 2.9 mm by processing appropriate minimum quantities of material,
- inspections during installation and of the finished product and documentation of the results.

#### PCI Pursol 640 PCI Ausburg GmbH

Intended use Specifications Annex B