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DE LA CONSTRUCCIÓN
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**European Technical Assessment ETA 07/ 0131
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English translation prepared by IETcc. Original version in Spanish language

General Part

Technical Assessment Body issuing the European Technical Assessment:

Instituto de Ciencias de la Construcción Eduardo Torroja (IETcc)

Trade name of the construction product

POLIBREAL®

Product family to which the construction product belongs

Liquid Applied Roof Waterproofing Kit, based on Hot applied polymer modified bitumen

Manufacturer

IMPERMEABILIZANTES CIENTIFICOS, S.A (IMCISA)
Polígono Industrial Alcamar, nave 8-9. Camarma de Esteruelas, 28816 Madrid. Spain

Manufacturing plant(s)

Polígono Industrial Alcamar, nave 8-9. Camarma de Esteruelas, 28816 Madrid. Spain

This European Technical Assessment contains

6 pages, including 1 Annex which contains confidential information and is not included in this ETA

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

EAD 030350-00-0402
Liquid applied roof waterproofing kits

This version replaces

ETA 07/0131 issued on 30-03-2017

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Specific parts

1. Technical description of the product

The Liquid Applied Roof Waterproofing Kit (LARWK) "POLIBREAL®" is designed and installed in accordance with the manufacturer, design and installation instructions, deposited at the IETcc. This LARWK comprises the following components, which are factory produced by the manufacturer..

System	Components	Trade name	Consume
1 One layer	Modified bitumen	POLIBREAL®	≥ 5 kg/m ²
	External layer	FORPAC 50: Polyester (PET)	Thickness ≥ 50 μ
2 Multi - layer	Modified bitumen	POLIBREAL®	≥ 4 kg/m ²
	Internal Layer	FORPAC 23: Polyester (PET)	Thickness ≥ 23 μ
		Aluminium	Thickness ≥ 30 μ
		Polyester felt non-woven	≥ 150 g/m ²
External layer	FORPAC 50: Polyester (PET)	Thickness ≥ 50 μ	

This kit, based on hot applied polymer modified bitumen "POLIBREAL®", manufactured by the company IMCISA, consists of a bitumen modified with PVC and mineral loads, with an external protection layer; which once polymerised conforms an elastic lining, in form of a layer completely bonded to the support (concrete, mortar). The minimum layer thickness of the assembled system has to be 3,5 mm and the quantity consumed ≥ 5 kg/m². The kit has an external protection layer of polyester film (PET), with a thickness ≥ 50 microns, adhered to the membrane.

The kit allows the option to be installed using several consecutives layers, with a consume ≥ 4 kg/m² and thickness ≥ 3 mm each one, with an internal separation layer of polyester film (thickness ≥ 23 microns), aluminium (thickness ≥ 30 microns) or polyester felt non-woven (≥ 150 g/m²). The kit has an external protection layer of polyester film (PET), with a thickness ≥ 50 microns, adhered to the membrane.

2. Specification of the intended use in accordance with the applicable European Assessment Document (hereinafter EAD)

2.1 Intended use(s)

The intended use of this System is the waterproofing of roof against the water, as in liquid as vapour form. This LARWK fulfils the Basic works requirements n.º 2 (Safety in case of fire), n.º 3 (Hygiene, health and the environment) and n.º 4 (Safety in use) of the European Regulation 305/11.

This LARWK is made of non load-bearing construction elements. It does not contribute directly to the stability of the roof on which is installed, but it can contribute its durability by providing enhanced protection from the effect of weathering.

This LARWK can be used on new or existing (retrofit) roofs. It can also be used on vertical surfaces (singular details).

2.2 Relevant general conditions for the use of the kit

The provisions made in this European Technical Assessment are based on an assumed working life of 25 years from installation in the works, according to EAD030350-00-0402, provided that the conditions lay down for the installation, packaging, transport and storage as well as appropriate use, maintenance and repair are met. In this respect.

The indications given on the working life cannot be interpreted as a guarantee given neither by the product manufacturer nor by EOTA nor by the Technical Assessment Body issuing this ETA, but are regarded only as a means for choosing the right product in relation to the expected economically reasonable working life of the works.



Installation. The Kit is installed on site. It is the responsibility of the manufacturer to guarantee that the information about design and installation of this system is effectively communicated to the concerned people. This information can be given using reproductions of the respective parts of this ETA. Besides, all the data concerning the execution shall be clearly indicated on the packaging and/or the enclosed instruction sheets using one or several illustrations.

Design. In the MTD the manufacture gives information on the quantities consumed and the processing, which shall lead to a thickness of the roof waterproofing ≥ 3.5 mm.

Execution. Particularly, it is recommended to consider:

- the kit installation has to be carried out by qualified installers certificated by IMCISA,
- it can be only used the components of the kit indicated in this ETA,
- the application of the Systems can be only performed in roof which the structural support is constituted by the different kinds of reinforced concrete show in the MTD,
- previous to the installation of the system, the support must be reviewed considering its constitution (reinforcement concrete) and its surface state (compact, cleanness, dryness, etc.),
- inspection of the internal separation layer in the multi-layer system before the application of the following layer, so as the external protection layer before the collocation of the final protection of the roof,
- this product can be installed in inverted roofs, when it is used polystyrene as thermal insulation,
- the supervision and control of the installation of the system are enclosed in the MTD,
- the temperature of the product in the mixer machine must not be higher than 165 °C. The product can keep in the boiler for 60 minutes at 140°C, with a continuous stirring,
- the application temperature of the product cannot be lower than 90 °C,
- in the singular point of passing element to improve the adherence of the system with the protection of the singular point, it is used the adhesive PET-50(manufactured by IMCISA) with dry sand (without fines particles). The curing time of the adhesive is at least 24h,
- it must be used the following personal protection elements: security helmet and shoes, protection glasses and gloves, filtration face mask against gas and vapors; in general, it must be applied the security precautions included in "POLIBREAL®" security card.

Before, the installation of POLIBREAL®, it is recommended to read its security card.

Use, maintenance and repair of the works. In those roofs with deteriorated areas of the waterproof layers, they will be repaired carrying out some light grinding to open the pore of the deteriorated layers. Afterwards, the new product will be assembled following the installation instruction and the new coats must overlap, at least 10 cm, to the coat no deteriorated. Further installation details are laid down in the MTD place at IETcc.

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

The identification tests and the assessment for the intended use of "POLIBREAL®" according to the Basic Work Requirements (BWR) were carried out in compliance with EAD 030350-00-0402. The characteristics of each system shall correspond to the respective values laid down in following tables of this ETA, checked by IETcc.

Methods of verification and of assessing and judging are listed afterwards.

3.1 Safety in case of fire (BWR 2)

Basic requirement for construction works 2: Safety in case of fire		
Essential characteristic	Relevant clause in EAD	Performance
External fire performance of roofs	2.2.1	NPA
Reaction to fire	2.2.2	NPA



3.2 Hygiene, health and environment (BWR 3)

Basic requirement for construction works 3: Hygiene, health, and the environment		
Essential characteristic	Relevant clause in EAD	Performance
Content, emission and/or release of dangerous substances	2.2.3	NPA The leachable substances are not determined in accordance with this EAD
Resistance to water vapour	2.2.4	$\mu = 26\ 600$ (4 mm thickness)
Watertightness	2.2.5	Watertight
Resistance to wind loads	2.2.6	NPA
Resistance to mechanical damage (perforation)	2.2.7	P4
Resistance to dynamic indentation (23 °C)	2.2.7.1	I4 (6 mm)
Resistance to static indentation (23 °C)	2.2.7.2	L4 (250 N)
Resistance to fatigue movement (1000 cycles) (-10 °C)	2.2.8	Pass
Resistance to the effects of low and high surface temperatures	2.2.9	TL2 / TH2
Resistance to the effects of low surface temperatures (-10 °C)	2.2.9.1	Dynamic Indentation I4 (6 mm)
		Low temperature flexibility Without cracks
Resistance high temperatures effects (60 °C)	2.2.9.3	Static indentation L4 (250 N)
		Sliding resistance at 90° 0 mm
Resistance to heat ageing (200 days at 80 °C)	2.2.10.1	Dynamic Indentation I4 (6 mm)
		Fatigue movement (50 cycles) at -10 °C: Pass
		Low temperature flexibility at -10 °C Without cracks
Resistance to UV radiation in the presence of moisture	2.2.10.2	NPA <i>This kits are always protected by inverted roof, heavy protection, roof gardens or green roofs</i>
Resistance to water ageing (180 days at 60 °C)	2.2.10.3	Static indentation L4 (250 N)
		Low temperature flexibility at -10 °C Without cracks
Resistance to plant roots	2.2.11	Resistant
Effects of variations in kit components and site practices	2.2.12	Effect of remelting: NPA POLIBREAL® cannot be remelting
		Effect of prolonged heating at 140 °C for 60´ Penetration at 50 °C ≤ 22 mm. Flow at 60 °C ≤ 1mm.
Effects of the days joint	2.2.13	NPA

3.3 Safety and accessibility in use (BWR 4)

Basic requirement for construction works 4: Safety and accessibility in use		
Essential characteristic	Relevant clause in EAD	Performance
Slipperiness	2.2.14	NPA



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

4.1 System of assessment and verification of constancy of performance

According to the decision 98/599/EC of October 1998, Official Journal of the European Communities N° L 287, 24.10.1998) of the European Commission¹, system 3 of assessment and verification of constancy of performance (see EC delegated regulation (EU) No 568/2014 amending Annex V to Regulation (EU) N° 305/2011) applies.

Product	Intended uses	Level or Classes	System
POLIBREAL®	Liquid Applied Roof Waterproofing Kit	Any	3

5 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 which is deposited at IETcc².

5.1 Tasks of the manufacturer

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 ensure that the product is in conformity with this ETA.

The manufacturer may only use components stated in the technical documentation of this ETA including Control Plan. The incoming raw materials are subjected to verifications by the manufacturer before acceptance.

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

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

5.2 Tasks of notified bodies.

Initial type-testing of the product. For type testing, the results of the tests performed as part of the assessment for the European Technical Assessment shall be used unless there are changes in the production line or plant. In such cases, the necessary type testing has to be agreed between IETcc and the notified body.

The initial type-testing have been conducted by the IETcc to issue this ETA in accordance with the EAD 030350-00-0402 "Liquid applied roof waterproofing kits". The verifications underlying this ETA have been furnished on samples from the current production.

¹ Published in the Official Journal of the European Union (OJEU) L 262, 14/10/2003 P. 0034 - 0036.
See www.new.eur-lex.europa.eu/oj/direct-access.html

² The Control Plan is a confidential part of the ETA and only handed over to the notified certification body involved in the assessment and verification of constancy of performance.



Issued in Madrid on 3 of march 2023

By

Director

on behalf of Instituto de Ciencias de la Construcción Eduardo Torroja (IETcc – CSIC)

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