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Agrément Certificate

12/4904

Product Sheet 1

ICOPAL SAS ROOF WATERPROOFING MEMBRANE

ADEPAR JS ROOF UNDERLAY

This Agrément Certificate Product Sheet⁽¹⁾ relates to Adepar JS Roof Underlay, an SBS-modified, reinforced bitumen membrane, for use as a first layer in a two-layer, partially-bonded built-up roof waterproofing system with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS or Parafor Solo GS cap sheet membranes, the subjects of Certificate 93/2877.

(1) Hereinafter referred to as 'Certificate'.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance



KEY FACTORS ASSESSED

Weathertightness — the product will resist the passage of moisture into the building (see section 6).

Properties in relation to fire — the product, used in a two-layer, built-up roof waterproofing system with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS or Parafor Solo GS, will be unrestricted under the Building Regulations (see section 7).

Resistance to wind uplift — the product will resist the effects of any likely wind suction acting on the roof (see section 8).

Durability — under the normal conditions the product, when incorporated into a two-layer built-up roof waterproofing system with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS or Parafor Solo GS, will have a service life in excess of 30 years (see section 10).

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Second issue: 11 August 2015

John Albon – Head of Approvals
Construction Products

Claire Curtis-Thomas
Chief Executive

Originally certificated on 12 April 2012

The BBA is a UKAS accredited certification body – Number 113.

The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

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Regulations

In the opinion of the BBA, Adepar JS Roof Underlay, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	B4(2)	External fire spread
Comment:		On suitable substrates, the use of the product in a two-layer, built-up roofing system with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS or Parafor Solo GS will enable a roof to be unrestricted under this Requirement. See section 7 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The product, including joints, will contribute to a roof meeting this Requirement. See section 6 of this Certificate.
Regulation:	7	Materials and workmanship
Comment:		The product is acceptable. See section 10 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Durability, workmanship and fitness of materials
Comment:		The product can satisfy the requirements of this Regulation. See section 10 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		When applied to suitable substrates, the product in a two layer built up roofing system with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS or Parafor Solo GS is classified as having a low vulnerability under clause 2.8 ⁽¹⁾⁽²⁾ of this Standard. See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product, including joints, will contribute to a roof satisfying clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.7 ⁽¹⁾⁽²⁾ of this Standard. See section 6 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The product can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	12	Building standards applicable to conversions
Comment:		Comments in relation to the product under Regulation 9, Standards 1 to 6 also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ .

(1) Technical Handbook (Domestic)

(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	23(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The product is acceptable. See section 10 and the <i>Installation</i> part of this Certificate.

Regulation:	28(b)	Resistance to moisture and weather
Comment:		The product, including joints, will contribute to a roof satisfying this Regulation. See section 6 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		When applied on suitable substructures, the product in a two-layer, built-up roofing system with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS or Parafor Solo GS will enable a roof to be unrestricted under the requirements of this Regulation. See section 7 of this Certificate.

Construction (Design and Management) Regulations 2015 Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, Principal Designer/CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See section: 1 *Description* (1.2) of this Certificate.

Additional Information

NHBC Standards 2014

NHBC accepts the use of Adepar JS Roof Underlay, provided it is installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards*, Chapter 7.1 *Flat roofs and balconies* and Chapter 7.2 *Pitched roofs*.

CE marking

The Certificate holder has taken the responsibility of CE marking the product in accordance with harmonised European Standard EN 13707 : 2013. An asterisk (*) appearing in this Certificate indicates that data shown are given in the manufacturer's Declaration of Performance.

Technical Specification

1 Description

1.1 Adepar JS Roof Underlay is a self-adhesive, partially-bonded SBS-modified bitumen base layer with a 140 g·m⁻² polyester reinforcement. The upper surface has a macro-perforated fusible film for torch applications. The lower surface has factory-applied self-adhesive edges and strips protected by a siliconised peel-off film.

1.2 The nominal characteristics of the membrane are:

Thickness* (mm)	2.65
Roll width* (m)	1
Roll length* (m)	10
Roll weight (kg)	35
Tensile strength* (N per 50 mm)	
longitudinal	550
transverse	315
Elongation at break* (%)	
longitudinal	35
transverse	35
Low temperature flexibility* (°C)	-20
Watertightness*	Pass.

1.3 Other products used with Adepar JS Roof Underlay include:

- Siplast Primer — an SBS bitumen primer for priming concrete substrates

- Paradiene 30.1GS⁽¹⁾ — a glassfibre (55 g·m⁻²) reinforced, polymer-modified bitumen sheet, with a mineral granule or slate-finished upper surface and a thermofusible film under surface, for use as a cap sheet
- Paradiene 40.1GS⁽¹⁾ — a glassfibre (100 g·m⁻²) reinforced, polymer-modified bitumen sheet with a mineral granule or slate-finished upper surface and a thermofusible film under surface, for use as a cap sheet
- Parafor 30 GS⁽¹⁾ — a polyester fibre (180 g·m⁻²) reinforced, polymer-modified bitumen sheet, with a mineral granule or slate-finished upper surface and a macro-perforated thermofusible film under surface, for use as a cap sheet
- Parafor Solo GS⁽¹⁾ — a polyester fibre (180 g·m⁻²) reinforced, polymer-modified bitumen sheet, with a mineral granule or slate-finished upper surface and a macro-perforated thermofusible film under surface, for use as a cap sheet.

(1) Subject of BBA Certificate 93/2877, Product Sheet 2.

2 Manufacture

2.1 The membrane is manufactured by saturating and coating the reinforcement with SBS (styrene-butadiene-styrene), modified bitumen and limestone, then calendaring to the correct thickness. The sheets are cooled, trimmed and rolled for packaging.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control being operated by the manufacturer are being maintained.

2.3 The management system of Icopal SAS has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by Bureau Veritas Certification, Certificate 1/927.221/C.

3 Delivery and site handling

3.1 The product is delivered to site in wrapped rolls and on pallets. Roll labels are colour-coded and bear the product name, marketing company name and the BBA logo including the number of this Certificate.

3.2 The rolls must be stored on end, on a clean, level surface and under cover.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Adepar JS Roof Underlay.

Design Considerations

4 Use

4.1 Adepar JS Roof Underlay is satisfactory for use as a first layer in a two-layer, partially-bonded, built-up roof waterproofing system for inaccessible flat roofs, with Paradiene 30.1 GS, Paradiene 40.1GS, Parafor 30 GS and Parafor Solo GS cap sheets.

4.2 Flat roofs are defined for the purpose of this Certificate as those having a minimum finished fall of 1:80. For design purposes twice the minimum finished fall should be assumed, unless a detailed analysis of the roof is available, including overall and local deflection, direction of falls, etc. Pitched roofs are defined as those having falls greater than 1:6.

4.3 Decks to which the product is to be applied must comply with the relevant requirements of either BS 6229 : 2003 or BS 8217 : 2005 and, where appropriate, *NHBC Standards* 2014, Chapter 7.1.

4.4 Insulation materials used in conjunction with the product must be in accordance with the manufacturer's instructions and be either:

- as described in the relevant Clauses of BS 8217 : 2005, or
- the subject of a current BBA Certificate and used in accordance with, and within the scope of, that Certificate.

5 Practicability of installation

The product must be installed by a competent roofing contractor, experienced with this type of product.

6 Weathertightness



The product, when used as a first layer in a two-layer, built-up roof waterproofing system, will adequately resist the passage of moisture into the building and enable a roof to comply with the requirements of the national Building Regulations.

7 Properties in relation to fire



7.1 The product is classified as class F* in accordance with EN 13501-1 : 2007 (equivalent to No Performance Determined).

7.2 A system comprising 20 mm thick chipboard deck, 40 mm thick mineral wool, one layer of torch-applied underlay, and one layer of Paradiene 30.1GS (torch-applied) will be unrestricted under the national Building Regulations.

7.3 The designation of other specifications should be confirmed by:

England and Wales — test or assessment to Approved Document B, Appendix A, Clause A1

Scotland — tests to conform to Mandatory Standard 2.8, clause 2.8.1

Northern Ireland — test or assessment by a UKAS-accredited laboratory, or an independent consultant with appropriate experience.

8 Resistance to wind uplift



8.1 The adhesion of the bonded product is sufficient to resist the effects of wind suction, elevated temperatures and thermal shock conditions likely to occur in practice.

8.2 The product, when used in conjunction with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS and Parafor Solo GS as the cap sheet, can resist the effects of wind suction likely to occur in practice.

9 Maintenance

As the product is part of a built-up roof specification and has suitable durability (see section 10), maintenance is not required. However, any damage occurring before enclosure must be repaired.

10 Durability



When the product is used as part of a two-layer built-up roof specification with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS or Parafor Solo GS, the system will have a service life in excess of 30 years.

11 General

11.1 Installation of Adepar JS Roof Underlay is carried out in accordance with the Certificate holder's instructions and the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989 and BS 8217 : 2005.

11.2 Deck surfaces must be dry, clean and free from sharp projections such as nail heads and concrete slabs.

11.3 The product has satisfactory low-temperature flexibility and may be laid in all weather conditions normal to roofing work.

11.4 The product must be applied with minimum side laps of 60 mm and end laps of 150 mm and all laps should be fully sealed.

11.5 The product must always marry up with the waterproofing system to ensure that the insulation is enveloped at all times.

12 Procedure

12.1 Decks and substrates must be primed with Siplast Primer with an approximate coverage of 0.30 litres per m² on concrete and allowed to dry.

12.2 Each sheet of the membrane is unrolled and positioned, then re-rolled. The siliconised film is removed as the sheet is fixed in position by applying pressure.

12.3 The side laps, which have self-adhesive strips, are sealed by applying pressure. The end laps must be sealed by lightly torching.

12.4 The membrane must be fully bonded by torching over a 500 mm wide margin at all perimeters and around openings.

12.5 A top layer of Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS or Parafor Solo GS is fully torch bonded to the underlay. Side laps are determined by the exposed selvedge, and end laps have a minimum of 60 mm. Joints should be offset 300 mm with those of the base sheet below.

13 Repair

In the event of damage, the product can be effectively repaired after cleaning, by applying a patch of the material, torch bonded to the damaged area with suitable overlap, prior to the installation of the upper layers of the system.

14 Tests

An assessment was made on data to EN 13707 : 2013 in relation to:

- mass per unit area
- tensile strength and elongation
- nail tear strength
- resistance to static loading
- impact resistance
- peel resistance of joints
- dimensional stability
- flow at elevated temperatures
- low-temperature flexibility.

15 Investigations

15.1 Data provided by CSTB resulting in Avis Technique 5/07-1931 were evaluated in the context of UK roofing practice and building regulations.

15.2 UK data on the fire performance of built-up roofing specifications with Paradiene 30.1GS, Paradiene 40.1GS, Parafor 30 GS and Parafor Solo GS were evaluated.

15.3 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

Bibliography

BS 6229 : 2003 *Flat roofs with continuously supported coverings — Code of practice*

BS 8000-0 : 2014 *Workmanship on construction sites — Introduction and general principles*

BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*

BS 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*

BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

EN 13501-1 : 2007 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*

EN 13707 : 2013 *Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics*

16 Conditions

16.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

16.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

16.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

16.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

16.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

16.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.