### **BMI Deutschland GmbH**

Frankfurter Landstrasse 2-4 D-61440 Oberursel Germany

Tel: 00 49 (0) 617161014

e-mail: info.kloeber@bmigroup.com

website: www.bmigroup.com www.wraptec.net



Agrément Certificate 25/7368

Product Sheet 1 Issue 1

## **BMI JACKETING MATERIAL**

## **WRAPTEC**

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to Wraptec, a polyisobutylene material, for use as weather-resistant jacketing around insulated heating, ventilation and air conditioning pipes and ducts.

(1) Hereinafter referred to as 'Certificate'.

#### The assessment includes

#### **Product factors:**

- compliance with Building Regulations
- compliance with additional regulatory or nonregulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- · uses and design considerations

#### **Process factors:**

- · compliance with Scheme requirements
- · installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

#### Ongoing contractual Scheme elements†:

- regular assessment of production
- · formal 3-yearly review



#### **KEY FACTORS ASSESSED**

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability

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 issue: 3 June 2025

Hardy Giesler Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).

Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément 1st Floor, Building 3, Hatters Lane Croxley Park, Watford Herts WD18 8YG

tel: 01923 665300 clientservices@bbacerts.co.uk www.bbacerts.co.uk

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BBA 25/7368 PS1 Issue 1 Page 1 of 9

## **SUMMARY OF ASSESSMENT AND COMPLIANCE**

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

## **Compliance with Regulations**

In the opinion of the BBA the use of Wraptec is not subject to the national Building Regulations.

# **Fulfilment of Requirements**

The BBA has judged Wraptec to be satisfactory for use as described in this Certificate. The product has been assessed for use as weather-resistant jacketing around insulated heating, ventilation and air conditioning pipes and ducts to protect the insulation from UV light and the weather and therefore reduce the risk of pipework corrosion due to moisture infiltration.

## **ASSESSMENT**

# Product description and intended use

The Certificate holder provided the following description for the product under assessment. Wraptec is a polyisobutylene jacketing material.

The product has the nominal characteristics given in Table 1.

Table 1 Nominal characteristics				
Characteristic (unit)	Value			
Thickness (mm)	1.05			
Length (m)	10			
Width (mm)	70	140	280	560
Weight/roll (kg)	1.31	2.63	5.25	10.5
Colours	•	Anthracite, Light Grey		

## **Ancillary Items**

The Certificate holder recommends a specialist adhesive for use with the product, but this product has not been assessed by the BBA and is outside the scope of this Certificate.

## Product assessment – key factors

The product was assessed for the following key factors, and the outcome of the assessment is shown below.

### 1 Mechanical resistance and stability

Data were assessed for the following characteristics.

#### 1.1 Strength and stability

1.1.1 Results of strength and stability tests are given in Table 2.

Table 2 Strength an	d stability		
Product assessed	Assessment method	Requirement	Result
Wraptec	Tensile strength to BS EN ISO 527-3: 1996 Method 326E	Value achieved	
	Longitudinal direction		2.56 MPa
	Transverse direction		2.11 MPa

BBA 25/7368 PS1 Issue 1 Page 2 of 9

- 1.1.2 On the basis of data assessed, the product will resist the normal loads associated with installation and use.
- 1.1.3 The product can be punctured by sharp objects and concentrated loads but can easily be repaired.

## 2 Safety in case of fire

Data were assessed for the following characteristic.

#### 2.1 Reaction to fire

The result of a reaction to fire classification test is given in Table 3.

ment	Result
nieved	Е
	uirement e achieved

<sup>(1)</sup> Fire classification report reference 2016-1441-K1, conducted by Exova, available from the Certificate holder on request.

## 3 Hygiene, health and the environment

Data were assessed for the following characteristics.

### 3.1 Weathertightness

3.1.1 Results of weathertightness tests are given in Table 4.

Table 4 Weathertightness			
Product assessed	Assessment method	Requirement	Result
Wraptec wrapped around	Visual assessment based on	No visual defects	Pass
a pipe	BS EN 1850-2 : 2001	Unable to unroll	Pass

- 3.1.2 Water absorption, water vapour permeability and low temperature flexibility were assessed using test data from a representative related product.
- 3.1.3 On the basis of data assessed, the product, including properly sealed and consolidated joints, will adequately resist the passage of water and water vapour into pipework or ducts and therefore minimise the risk of corrosion due to the infiltration of moisture.
- 3.1.4 On the basis of the data assessed, the product has a high resistance to the transmission of water vapour. For design purposes the equivalent air thickness  $s_d$  is > 400 m.

## 4 Safety and accessibility in use

Not applicable.

### 5 Protection against noise

Not applicable.

## 6 Energy economy and heat retention

Not applicable.

### 7 Sustainable use of natural resources

The product is manufactured from polyisobutylene, which can be recycled.

BBA 25/7368 PS1 Issue 1 Page 3 of 9

## 8 Durability

- 8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the product were assessed.
- 8.2 Specific test data were assessed as given in Table 5.

Table 5 Durability			
Product assessed	Assessment method	Requirement	Result
Wraptec	Tensile strength to BS EN ISO 527-3: 1996 Method 326E	No significant loss of	
	after UV ageing at 500 MJ·m <sup>-2</sup> at 60°C with water spray	properties following	
	to EOTA TR-010 : 2004	ageing	
	Longitudinal direction		Pass
	Transverse direction		Pass
Wraptec wrapped	Visual assessment based on BS EN 1850-2: 2001	No significant loss of	Pass
around a pipe	after immersion in water at 23°C for 28 days	properties following	
		ageing	
	Visual assessment based on BS EN 1850-2: 2001	No significant loss of	Pass
	after 20 cycles of freeze/thaw	properties following	
	(16 hours at -40°C and 8 hours at 23°C per cycle)	ageing	
	Visual assessment based on BS EN 1850-2: 2001	No significant loss of	Pass
	after heat ageing at 100°C for 28 days	properties following	
		ageing	
	Visual assessment based on BS EN 1850-2: 2001	No significant loss of	Pass
	after exposure to low temperature at -40°C for 7 days	properties following	
		ageing	
	Visual assessment based on BS EN 1850-2: 2001	No significant loss of	Pass
	after UV ageing at 500 MJ·m <sup>-2</sup> at 60°C with water spray	properties following	
	to EOTA TR-010 : 2004	ageing	

### 8.3 Service life

Under normal service conditions, the product will have a life in excess of 10 years, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

## **PROCESS ASSESSMENT**

Information provided by the Certificate holder was assessed for the following factors:

## 9 Design, installation, workmanship and maintenance

- 9.1 Design
- 9.1.1 The design process was assessed by the BBA, and the following requirements apply in order to satisfy the performance specified in this Certificate.
- 9.1.2 The product is not compatible with bitumen fuels or oils and contact with these materials must be avoided. Compatibility with other materials must be confirmed with the Certificate holder, however such advice is outside the scope of this Certificate.
- 9.1.3 The product must be fully supported by the insulated ducting.
- 9.2 Installation
- 9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

BBA 25/7368 PS1 Issue 1 Page 4 of 9

- 9.2.2 Installation must be carried out in accordance with this Certificate and the Certificate holder's instructions.
- 9.2.3 Existing pipes, ducts and insulation must be in sound condition, securely fixed and airtight prior to the application of the product.
- 9.2.4 The product is suitable for application to metal foil faced pipe or duct insulation. Where non-faced insulation is to be covered, the Certificate holder must be consulted on the product's compatibility with the insulation, but such advice is outside the scope of this Certificate.
- 9.2.5 Installation of the product must only be carried out under dry conditions when the air temperature is between 5 and 40°C.
- 9.2.6 Surfaces over which the product is applied must be dry, dust free and free from other contamination such as grease.
- 9.2.7 Existing moisture must be removed and the structure allowed to dry prior to the application of the product to avoid entrapment of moisture.
- 9.2.8 On small diameter pipes and where conditions allow, the product must be helically wound around the pipe or duct ensuring an overlap of at least 20 mm over adjacent windings and ensuring that the joints are pressed together.
- 9.2.9 On larger diameter pipes or where helical winding is not possible, lengths of the product are cut and applied so that the pipe circumference is totally covered. Joints between adjacent lengths must overlap by at least 20 mm.
- 9.2.10 In all cases, during winding, adequate tension must be applied to the product to ensure the jacketing material amalgamates to itself at the joints and, where possible, joints must be wound to direct water away.
- 9.2.11 At elbows and T-junctions, template designs are available from the Certificate holder to allow efficient use of material when covering these details. Users must refer to the Certificate holder's technical literature for details.

#### 9.3 Workmanship

Practicability of installation was assessed by the BBA, on the basis of the Certificate holder's information and a visit to a site in progress. To achieve the performance described in this Certificate, installation of the product must be carried out by installers who have been trained and approved by the Certificate holder.

### 9.4 Maintenance and repair

- 9.4.1 Ongoing satisfactory performance of the product in use requires that it is suitably maintained. The guidance provided by the Certificate holder was assessed by the BBA found to be appropriate and adequate.
- 9.4.2 The following requirements apply in order to satisfy the performance assessed in this Certificate:
- 9.4.2.1 Installations must be periodically checked for damage and where necessary, repaired.
- 9.4.2.2 Prior to repair, damaged areas must be thoroughly cleaned of contamination using a suitable cleaning agent. The Certificate holder can advise on suitable materials for this purpose, but such advice and products are outside the scope of this Certificate.
- 9.4.2.3 The product is repaired by applying one or more additional windings over the damaged section, ensuring that the area is covered by at least 20 mm of the new material.

#### 10 Manufacture

- 10.1 The production processes for the product have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:
- 10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

BBA 25/7368 PS1 Issue 1 Page 5 of 9

- 10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.
- 10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.
- 10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.
- 10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.
- † 10.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

## 11 Delivery and site handling

- 11.1 The Certificate holder stated that the product is delivered to site in carboard boxes labelled with the product name, length, colour, article number, number of rolls per box and the Certificate holder's name and address. In addition, each roll is labelled with a barcode that identifies the colour, width, length and product branding.
- 11.2 Delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:
- 11.2.1 The product must be protected from direct exposure to the elements and stored at temperatures between 5 and 40°C.

BBA 25/7368 PS1 Issue 1 Page 6 of 9

## **†ANNEX A – SUPPLEMENTARY INFORMATION**

Supporting information in this Annex is relevant to the product but has not formed part of the material assessed for the Certificate.

# <u>Construction (Design and Management) Regulations 2015</u> Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

## **CLP Regulations**

The Certificate holder has taken the responsibility of classifying and labelling the product under the *GB CLP Regulation* and *CLP Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

## Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of DIN EN ISO 9001 : 2015 by TUV Nord CERT GmbH (Certificate 44100211722).

BBA 25/7368 PS1 Issue 1 Page 7 of 9

# **Bibliography**

BS EN ISO 527-3 : 1996 Determination of tensile properties — Test conditions for films and sheets

 $BS\ EN\ 1850-2: 2001\ Flexible\ sheets\ for\ waterproofing\ -- \ Determination\ of\ visible\ defects\ -- \ Plastic\ and\ rubber\ sheets\ for\ roof\ waterproofing$ 

DIN EN 13501-1 : 2010 Fire classification of construction products and building elements — Classification using test data from reaction to fire tests

DIN EN ISO 9001 : 2015 Quality management systems — Requirements

EOTA TR-010: 2004 Exposure procedure for artificial weathering

BBA 25/7368 PS1 Issue 1 Page 8 of 9

## **Conditions of Certificate**

#### **Conditions**

#### 1 This Certificate:

- relates only to the product 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 or claim that this Certificate has been issued to them
- 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
- and any matter arising out of or in connection with it or its subject matter (including non-contractual disputes or claims) is governed by and construed in accordance with the law of England and Wales.
- the courts of England and Wales shall have exclusive jurisdiction to settle any matter arising out of or in connection with this Certificate or its subject matter (including non-contractual disputes or claims).
- 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.
- 3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product 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.
- 4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.
- 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 or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product
- actual installations of the product, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to UKCA marking and CE marking.

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product 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.

British Board of Agrément 1<sup>st</sup> Floor, Building 3, Hatters Lane Croxley Park, Watford Herts WD18 8YG

tel: 01923 665300 clientservices@bbacerts.co.uk www.bbacerts.co.uk