

## Certificate of constancy of performance

0336 – CPR – 24091656 - 012

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product(s)

### **Natural smoke and heat exhaust ventilator with intended use to be installed as a component of natural smoke and heat exhaust system**

Specified by the commercial name(s)

**BLUESTEEL (THERM) / BLUECOIF (THERM) / BLUEBAC (THERM)**

**Energ(y)(ies) :**  
**PNEU / TREUIL / ELEC**

placed on the market under the name or trade mark

**BLUETEK**

**Siège social : ZI Nord les Pins – 37230 Luynes**

and produced in the manufacturing plant(s)

**HEXADOME : ZI Nord les Pins – 37230 Luynes / Rue Marc Sequin – 63600 Ambert**

**SIH : Le Haras – 57430 Sarralbe**

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of standard(s)

### **EN 12101-2:2003**

under system 1 for the performances set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the constancy of performance of the construction product

This certificate was first issued on 15<sup>th</sup> November 2006 under the Construction Products Directive 89/106/EEC (CPD) and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

TÜV Rheinland Nederland BV  
Westervoortsedijk 73, gebouw SB  
NL – 6827 AV Arnhem  
The Netherlands

Arnhem, 8<sup>th</sup> November 2016



C.C.M. van Houten, Operational Manager

**Certificate of constancy of performance**  
0336 – CPR – 24091656 - 012

**Annex 1**  
**Natural smoke and heat exhaust ventilator**

Commercial name :  
**BLUESTEEL (THERM) / BLUECOIF (THERM) / BLUEBAC (THERM)**

**Energ(y)(ies) :**  
**PNEU / TREUIL / ELEC**

| Energy   | Field of Application   |  |  |  |
|--|--|--|--|--|
|  | PNEUMATIC  | MECHANICAL   | MECHANICAL   | ELECTRIC   |
| Identification of product(s) certified (reference)   | Bluesteel (Therm)<br>PNEU<br>Bluecoif (Therm)<br>PNEU<br>Bluebac (Therm)<br>PNEU   | Bluesteel (Therm)<br>TREUIL<br>Bluecoif (Therm)<br>TREUIL<br>Bluebac (Therm)<br>TREUIL   | Bluesteel (Therm)<br>MECA EXP<br>Bluecoif (Therm)<br>MECA EXP<br>Bluebac (Therm)<br>MECA EXP   | Bluesteel (Therm)<br>ELEC<br>Bluecoif (Therm)<br>ELEC<br>Bluebac (Therm)<br>ELEC                             |
| La min (mm)  | 800  | 900  | 900  | 1000   |
| La max (mm)  | 2000   | 1700   | 1700   | 1400   |
| Lo min (mm)  | 700  | 800  | 800  | 1000   |
| Lo max (mm)  | 2500   | 2300   | 2300   | 2500   |
| Opening angle (°)  | 165°   | 140°   | 140°   | 165°   |
| Opening type   | Type B   | Type B   | Type A   | Type B   |
| <b>Declared Values</b>   |  |  |  |  |
| Filling (reaction to fire)   | PCA 10 to 20mm (B-s1,d0)<br>PCA 16 to 20mm Pearl Inside (B-s1,d0)<br>BSL (B-s2,d0)<br>Dôme/Pyramide PC (B-s2,d0)<br>Capot Alu Isolé (A1)   |  | PCA 32mm (B-s2,d0)<br>PCA 32 Pearl Inside (B-s2,d0)<br>Dôme/Pyramide PMMA (E,d2)<br>Dôme PRV (E)   |  |
| Aerodynamic free area  | See aerodynamics report:<br>124/2004,<br>125/2004, 126/2004,<br>1368-CPD-T-073/2012-B, 1368-CPD-T-074/2012-B   | See aerodynamics report:<br>1368-CPD-T-075/2012-B,<br>1368-CPD-T-076/2012-B,<br>1368-CPD-T-079/2012-B,<br>1368-CPD-T-252/2007-B<br>406/2005, 407/2005,<br>408/2005<br>CAPE AT 16-111/B | See aerodynamics report:<br>1368-CPD-T-075/2012-B,<br>1368-CPD-T-076/2012-B,<br>1368-CPD-T-079/2012-B,<br>1368-CPD-T-252/2007-B<br>406/2005, 407/2005,<br>408/2005<br>CAPE AT 16-111/B | See aerodynamics report:<br>124/2004,<br>125/2004, 126/2004,<br>1368-CPD-T-073/2012-B, 1368-CPD-T-074/2012-B |
| <b>For Pneumatic and Electric energy :</b><br>CAPE AT-05-022 Interprétation HEXADOME G4 V1      2007_01_16_note de synthèse du CSTB<br>2012_08_21_rapport cstb      2012_09_14_synthèse du cstb<br>Synt-CSTB-G4-100x230-0804 |  |  |  |  |
| Reliability  | Re 300 (all infill)<br>Re 1000 (and filling by size)   | Re 300   | Re 300   | Re 1 000   |
| Dual function for ventilation  | <b>PNEUMATIC</b> : Re 10 000 partial opening (stroke cylinder aeration of 300 or 500mm, electrical or pneumatical) (all infill)<br>Re 10 000 total opening (and filling by size)<br><b>MECHANICAL</b> : Re 10.000 partial opening<br><b>ELECTRIC</b> : Re 10.000 partial opening |  |  |  |
| Opening under load   | SL 250 - SL 500 – SL 550   | SL 50 - SL 250 - SL 500  | SL 50 - SL 250 - SL 500  | SL250–SL500-SL750-SL1000   |
| Low ambient temperature  | T(-15)   | T(00)  | T(00)  | T(-15)   |
| Wind load  | WL 1500<br>WL 3000 (S ≤ 2,53m²)  | WL1500<br>WL 3000 (S ≤ 2m²)  | WL1500<br>WL 3000 (S ≤ 2m²)  | WL 1500  |
| Resistance to wind induced vibration satisfactory with deflectors made of galvanized sheet   |  |  |  |  |
| Resistance to heat   | B 300  | B 300  | B 300  | B 300  |

- end of certificate -

Certificate 24091656-012  
8<sup>th</sup> November 2016  
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**TÜVRheinland®**  
Precisely Right.





**BLUEBAC THERM MECA EXPORT**

Products alternatives concerned :

- BLUEBAC THERM MECA EXPORT STD/MAX (DR)
- BLUEBAC THERM MECA EXPORT STD/MAX (B1)
- BLUEBAC THERM MECA EXPORT STD/MAX (B2)

Intended use (§3\*) :  Facade  Roof

§1\* : The full identification of the product is based on :  
- its order number and date of production indicated on the tracking sticker  
- its full designation : product range designation + alternative + infill + dimensions

DOP\_EN12101-2\_BLUEBAC THERM MECA EXPORT

N°:18,17

Name, registered trade name or trade mark and contact adress of manufacturer (§4\*)

Name : BLUETEK (Siège social : ZI Nord les Pins - 37230 Luynes)

Production units locations : HEXADOME : H001-ZI Nord les Pins - 37230 Luynes/H002-Rue Marc Seguin - 63600 Ambert // SIH : S001-Le Haras - 57430 Sarralbe // SODILIGHT : S002-Route de Saulon - 21220 Gevrey-Chambertin

Product description (§3\*)

- Single opening flap, mechanical mechanism, opening angle 140°
- Insulated Straight oblique or euro polyester upstand, Height mini 300 mm
  - STD : Without windshields
  - MAX : With windshields

Intended use of the construction product, in accordance with the applicable harmonised technical specification (§3\*)

Maximum authorized inclination of the device :

- Hinges at the up part of the slope, parrallel to the ridge : 3° (5%)
  - Hinges at the bottom part of the slope, parrallel to the ridge : 25° (46%)
  - Hinges perpendicular to the ridge\* : 25° (46%)
- \* Only for device with square dimensions

Product Range : Dim. Com. mini : 1,1x1,1m, Dim. Com. max : 1,5x1,5m or 1,5x1,8m

Possible options : (§3\*)

- Contactors open/close
- Fall protection system : Griddle without impact on aeraulic coefficient.

System or systems of assessment and verification of constancy of the construction product : (§6 7 \*)

The certificate of constancy of performance issued by the notified product certified body TÜV N° 0336 in accordance to the Annex ZA of the norm EN 12 101-2 2003 following system 1 on the basis of initial inspection of the manufacturing plant and of factory production control and continuous surveillance, assessment and evaluation of factory production control, Certificate N°0336-CPR-24091656-012

Declared performances (§9\*)

|                               |   | Référence EN 12 101-2 |  |
|-------------------------------|---|-----------------------|--|
| Aerodynamic free are Aa       | Please seen below table   | § 6. annex B          |  |
| Automatic opening temperature | ≥ 68°C  | § 4.1                 |  |
| Opening Type                  | Type A  | § 4.3                 |  |
| Reliability                   | Re300<br>Re10 000 for ventilation, half opening   | § 7.1, annex C        |  |
| Opening under load            | SL 50 - SL 250 - SL 500 (refer to table below)  | § 7.2, annex D        |  |
| Low ambient temperature       | T(00)   | § 7.3, annex E        |  |
| Stability under wind load     | WL1500 ou WL3000 for S (Top opening of the upstand) ≤ 2 m <sup>2</sup>  | § 7.4, annex F        |  |
| Resistance to heat            | B 300   | § 7.5, annex G        |  |
| Fire reaction                 | PCA 10 to 20mm (B-s2,d0) - PCA 32mm (B-s2,d0) - PCA 16 to 20mm Pearl Inside (B-s2,d0) - PCA 32mm Pearl Inside (B-s2,d0) - BSL (B-s2,d0) - PMMA Dome/Pyramid (E,d2) - PC Dome/Pyramid (B-s2,d0) - PRV Dome (E) - Standard aluminium cover (A1) | § 7.5.2.1             |  |

*In case of questions, test report references, dates of issuance and names of laboratories can be given by the notifying body to the surveillance authority.*

| Commercial dimensions |           |                | STD            | MAX            | PCA 16/20          |        |        |  |  |  |  |  |  |  | PCA 32 - CAPOT ALU STANDARD |  |  |  |  |  |  |  |  |  |
|-----------------------|-----------|----------------|----------------|----------------|--------------------|--------|--------|--|--|--|--|--|--|--|-----------------------------|--|--|--|--|--|--|--|--|--|
|                       |           | Snow Loads     |                |                |                    |        |        |  |  |  |  |  |  |  |                             |  |  |  |  |  |  |  |  |  |
| Dim. Com.             | Dim. Lum. | Av (SGO)       | Aa (SUE)       | Aa (SUE)       | Windshields Height | SL250  | SL 500 |  |  |  |  |  |  |  |                             |  |  |  |  |  |  |  |  |  |
| cm                    | cm        | m <sup>2</sup> | m <sup>2</sup> | m <sup>2</sup> | mm                 |        |        |  |  |  |  |  |  |  |                             |  |  |  |  |  |  |  |  |  |
| 110/110               | 100/100   | 1,21           | 0,61           | 0,90           | 200                | SL 250 | SL 500 |  |  |  |  |  |  |  |                             |  |  |  |  |  |  |  |  |  |
| 150/150               | 140/140   | 2,25           | 1,13           | 1,69           | 275                | SL 250 |        |  |  |  |  |  |  |  |                             |  |  |  |  |  |  |  |  |  |
| 100/200               | 100/200   | 2,00           | 0,76           | 1,26           | 200                | SL 250 |        |  |  |  |  |  |  |  |                             |  |  |  |  |  |  |  |  |  |
| 120/240               | 100/220   | 2,88           | 1,15           | 1,93           | 200                | SL 250 |        |  |  |  |  |  |  |  |                             |  |  |  |  |  |  |  |  |  |
| 150/180               | 130/160   | 2,70           | 1,35           | 1,84           | 200                | SL 250 |        |  |  |  |  |  |  |  |                             |  |  |  |  |  |  |  |  |  |

Values of catalogue products - For other dimensions, please consult us  
 Dim. Lum. : Light dimensions (Top opening of the upstand)  
 Dim. Com. : Commercial dimensions (Bottom opening of the upstand)

(1) Cartridge for the thermofuse  
 X : configuration available

The performance of the product identified in points §1 et §2 is in conformity with the declared performance in point §9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point §4.

Signed for and on behalf of the manufacturer by Philippe FRITZINGER, President of BLUETEK  
The 15/05/2017 in Luynes



\* Chapter § numbers according to annexe 3 of CPR UE N°305/2011

**BLUEBAC THERM MECA EXPORT**

Products alternatives concerned :

**BLUEBAC THERM MECA EXPORT STD/MAX (DR)**  
**BLUEBAC THERM MECA EXPORT STD/MAX (B1)**  
**BLUEBAC THERM MECA EXPORT STD/MAX (B2)**

Intended use (§3\*) :  Facade  Roof

§1\* : The full identification of the product is based on :  
 - its order number and date of production indicated on the tracking sticker  
 - its full designation : product range designation + alternative + infill + dimensions

DOP\_EN12101-2\_BLUEBAC THERM MECA EXPORT

N°:18,18

Name, registered trade name or trade mark and contact adress of manufacturer (§4\*)

Name : BLUETEK (Siège social : ZI Nord les Pins - 37230 Luynes)

Production units locations : HEXADOME : H001-ZI Nord les Pins - 37230 Luynes/H002-Rue Marc Seguin - 63600 Ambert // SIH : S001-Le Haras - 57430 Sarralbe // SODILIGHT : S002-Route de Saulon - 21220 Gevrey-Chambertin

Product description (§3\*)

- Single opening flap, mechanical mechanism, opening angle 140°
- Insulated Straight oblique or euro polyester upstand, Height mini 300 mm
  - STD : Without windshields
  - MAX : With windshields

Product Range : Dim. Com. mini : 1,1x1,1m, Dim. Com. max : 1,5x1,5m or 1,5x1,8m

Possible options : (§3\*)

- Contactors open/close
- Fall protection system : Griddle without impact on aerualic coefficient.

Intended use of the construction product, in accordance with the applicable harmonised technical specification (§3\*)

Maximum authorized inclination of the device :

- Hinges at the up part of the slope, parrallel to the ridge : 3° (5%)
- Hinges at the bottom part of the slope, parrallel to the ridge : 25° (46%)
- Hinges perpendicular to the ridge\* : 25° (46%)

\* Only for device with square dimensions

System or systems of assessment and verification of constancy of the construction product : (§6 7 \*)

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Declared performances (§9\*)

|                               |   | Référence EN 12 101-2 |  |
|-------------------------------|---|-----------------------|--|
| Aerodynamic free are Aa       | Please seen below table   | § 6. annex B          |  |
| Automatic opening temperature | ≥ 68°C  | § 4.1                 |  |
| Opening Type                  | Type A  | § 4.3                 |  |
| Reliability                   | Re300<br>Re10 000 for ventilation, half opening   | § 7.1, annex C        |  |
| Opening under load            | SL 50 - SL 250 - SL 500 (refer to table below)  | § 7.2, annex D        |  |
| Low ambient temperature       | T(00)   | § 7.3, annex E        |  |
| Stability under wind load     | WL1500 ou WL3000 for S (Top opening of the upstand) ≤ 2 m <sup>2</sup>  | § 7.4, annex F        |  |
| Resistance to heat            | B 300   | § 7.5, annex G        |  |
| Fire reaction                 | PCA 10 to 20mm (B-s2,d0) - PCA 32mm (B-s2,d0) - PCA 16 to 20mm Pearl Inside (B-s2,d0) - PCA 32mm Pearl Inside (B-s2,d0) - BSL (B-s2,d0) - PMMA Dome/Pyramid (E,d2) - PC Dome/Pyramid (B-s2,d0) - PRV Dome (E) - Standard aluminium cover (A1) | § 7.5.2.1             |  |

*In case of questions, test report references, dates of issuance and names of laboratories can be given by the notifying body to the surveillance authority.*

| Commercial dimensions |           | STD            | MAX            | PCA 16/20 PEARL INSIDE - DOME/PYRAMIDE DOUBLE PAROIS - BSL |                    |       |        |  |  |  |  |            |  | DOME/PYRAMIDE TRIPLE PAROIS |       |        |        |  |  |  |  |  |  |  |  |  |     |
|-----------------------|-----------|----------------|----------------|--|--------------------|-------|--------|--|--|--|--|------------|--|-----------------------------|-------|--------|--------|--|--|--|--|--|--|--|--|--|-----|
|                       |           |                |                | Snow Loads   |                    |       |        |  |  |  |  | Snow Loads |  |                             |       |        |        |  |  |  |  |  |  |  |  |  |     |
| Dim. Com.             | Dim. Lum. | Av (SGO)       | Aa (SUE)       | Aa (SUE)   | Windshields Height | SL250 | SL 500 |  |  |  |  |            |  |                             | SL250 | SL 500 |        |  |  |  |  |  |  |  |  |  |     |
| cm                    | cm        | m <sup>2</sup> | m <sup>2</sup> | m <sup>2</sup>   | mm                 |       |        |  |  |  |  |            |  |                             |       |        |        |  |  |  |  |  |  |  |  |  |     |
| 110/110               | 100/100   | 1,21           | 0,61           | 0,90   | 200                | SL250 | SL 500 |  |  |  |  |            |  |                             | 1,9   | SL250  | SL 500 |  |  |  |  |  |  |  |  |  | 1,9 |
| 100/200               | 100/200   | 2,00           | 0,76           | 1,26   | 200                | SL250 |        |  |  |  |  |            |  |                             | 1,9   | SL250  |        |  |  |  |  |  |  |  |  |  | 1,9 |

Values of catalogue products - For other dimensions, please consult us

Dim. Lum. : Light dimensions (Top opening of the upstand)

Dim. Com. : Commercial dimensions (Bottom opening of the upstand)

□ : configuration not available

X : configuration available

(1) Cartridge for the thermofuse

The performance of the product identified in points §1 et §2 is in conformity with the declared performance in point §9.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point §4.

Signed for and on behalf of the manufacturer by Philippe FRITZINGER, President of BLUETEK

The 15/05/2017 in Luynes



\* Chapter § numbers according to annexe 3 of CPR UE N°305/2011