

The background of the entire page is a close-up photograph of stacked stone panels. The panels are rectangular and have a rough, weathered texture with various shades of brown, grey, and black. They are stacked in a way that shows their thickness and the way they interlock.

# STONE PANEL

by CUPA GROUP

TECHNICAL INFORMATION  
NATURAL STONE PANELS

**CUPA**STONE  
The experts in Natural Stone

# CONTENTS

<b>STONEPANEL™ TYPES</b>	03
STONEPANEL™	03
STONEPANEL™ SKY®	03
<b>INSTALLATION GUIDE</b>	04
STONEPANEL™ INSTALLATION	04
STONEPANEL SKY™ INSTALLATION	07
<b>ENVIRONMENTAL STATEMENT</b>	09
<b>COMPARISON WITH OTHER PANELS</b>	10
<b>STONEPANEL™ MODELS</b>	12
<b>SPECIAL PIECES</b>	13
<b>TESTING AND CERTIFICATION</b>	14

## STONEPANEL™ TYPES

### STONEPANEL™

Prefabricated STONEPANEL™ panels are made of natural stone attached to a concrete base reinforced with fiberglass mesh to ensure the stones remain attached.



### STONEPANEL SKY™

STONEPANEL SKY™ is the most secure and effective solution for installing stone panels at higher levels. These panels are recommended for installation on surfaces higher than two meters.

This model features a stainless steel attachment loop, which ensures the most secure attachment of the STONEPANEL™ on a vertical face.



## INSTALLATION GUIDE

# STONEPANEL™

1. The same guidelines followed for installation of any other type of natural stone panels should be followed. In other words, make sure each piece is level and plumb.



2. The surface to be covered should be measured accurately and the panels purchased should cover at least 5% extra surface area to account for losses caused by cutting.



3. For remodeling or rebuilding projects, any existing surface coverings should first be removed. For painted walls, the paint should be removed by scraping or grinding. Any cracks or holes should be filled with cement grout.



4. A serrated trowel should be used to apply the adhesive in a double 6-7 mm layer, covering both the back of the STONEPANEL™ panel and the wall surface. It is important to make sure that the adhesive used can support the weight of the piece (6-12 kg depending on model).



5. The lowest row should be installed first, with the individual STONEPANEL™ panels interlocking. In the second row, the location of the joints should be alternated with respect to the first row in order to make the joints less visible. This alternation of pieces should continue in the rest of the rows.



6. The panels should be set into place firmly using a rubber mallet.



7. Trim the panels using a radial saw or a water jet cutter to accommodate any elements projecting from the wall surface.



8. Walls with corners.

- a. In the case of walls with corners, always begin installation at the corners using a long piece with a straight end, then use a short piece with a straight end to start the second row, alternating these lengths after that.
- b. Another option is to use the solid corner pieces from the STONEPANEL™ product line. These are manufactured with a built-in corner ready to be installed.



## INSTALLATION GUIDE

### STONEPANEL SKY™

STONEPANEL SKY™ panels have a stainless steel attachment loop that allows them to be screwed to the wall using our special anchoring adapter or a piece of perforated metal strip.

1. Start with the anchoring adapter that will allow the natural stone panel to be attached to the wall (recommended width 12-17 mm).



2. Bend the anchoring adapter in half so that two of the holes are aligned and the screw can pass through both.
3. Insert the anchoring adapter through the panel's attachment loop so it faces upwards for attachment to the wall.



4. Next, install the panels using adhesive in the same manner as with the regular STONEPANEL™ panels (in other words, like tiles).

5. Drill a hole in the wall for inserting a nylon screw anchor. This hole must be aligned with the holes that will be used in the anchoring adapter.



6. Finally, insert the screw through the adapter and into the nylon screw anchor, then tighten. The STONEPANEL SKY™ panel will be securely attached.



7. Follow the same procedure with the rest of the panels in the row and with the rest of the rows, so that the anchoring adapters are completely covered by the adhesive and do not interfere with installation of the panels covering them.






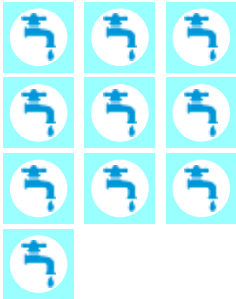








To prevent variations caused by an uneven wall surface, it is recommended that the two sides of the anchoring adapter be aligned so that the screw can pass through the holes on both sides.







### ENVIRONMENTAL IMPACT

Comparative analysis of STONEPANEL™ and other surfacing products' environmental impact.

	MATERIAL	KG CO <sub>2</sub> EQ/KG OF PRODUCT	AGUA/KG OF PRODUCT
<b>STONEPANEL™</b>	Stone		
<b>STONEPANEL SKY™</b>	Stone		
<b>BRETON GRANITE FACING</b>	Stone		
<b>STEEL SHEETS (INIES)</b>	Steel sheet		
<b>TEXTURED PANELS</b>	Fiber cement		
<b>PRODEX COMPOSITE PANELS</b>	Wood veneer panels		

## COMPARISON WITH RESIN-BASED PANELS

	RUSTIC PANEL	STONEPANEL™
		
<b>ABSENCE OF BREAKAGE DURING TRANSPORT</b>	<p>The mesh is not in contact with the entire panel surface.</p> <p>PROBLEMS: during transport the mesh does not prevent stones from falling off in the event of breakage. <b>X</b></p>	<p>The purpose of the fiberglass mesh is to constrain expansion of the concrete even if the concrete suffers impacts during transport. <b>✓</b></p>
<b>INSTALLATION AT HEIGHTS</b>	<p>The panel does not have safety anchoring.</p> <p>PROBLEMS: Risk of panel falling from the facade in the event that the adhesive fails. Should not be installed at heights above 2m. <b>X</b></p>	<p>The panel does not have safety anchoring, although it has passed Freeze-Thaw and Thermal Shock testing (see pg.18) UNE 22203.</p> <p>PROBLEMS: Risk of panel falling from the facade in the event that the adhesive fails. Should not be installed at heights above 2m. <b>X</b></p>
<b>PREVENTION OF FALLING STONE PANELS AFTER INSTALLATION</b>	<p>The stones are attached to the wall during installation using an adhesive mortar, without control over environmental conditions (dust, moisture, etc.).</p> <p>PROBLEMS: Gaps without adhesive may remain during installation so that part of the panel does not adhere. Breakage and falling may occur at any time. <b>X</b></p>	<p>The stones are attached to the concrete base during manufacture under optimal controlled conditions. Perfect adhesion between the mortar-adhesive used for installation and the panel's base is verified and tested. <b>✓</b></p>
<b>INVISIBLE JOINTS</b>	<p>The stones are joined using mortar-adhesive applied in the joints.</p> <p>PROBLEMS: The joints must have a minimum thickness in order to accommodate a minimum amount of mortar. The mortared joints between stones are very visible. <b>X</b></p>	<p>The stones are joined using a continuous layer of mortar and the stones are attached by their back surface, which prevents the joints from being visible. <b>✓</b></p>

STONEPANEL SKY™	LIGHT BLOCK
	
<p>The purpose of the fiberglass mesh is to constrain expansion of the concrete even if the concrete suffers impacts during transport.</p> <p style="text-align: right;">✓</p>	<p>Does not have reinforcement mesh, so breakage or falling stones are possible during transport.</p> <p style="text-align: right;">✗</p>
<p>Has a stainless steel anchoring loop embedded in the base. If the installation adhesive fails the panel will remain anchored until it can be replaced.</p> <p style="text-align: right;">✓</p>	<p>The panel does not have safety anchoring.</p> <p>PROBLEMS: Risk of panel falling from the facade in the event that the adhesive fails. Should not be installed at heights above 2m.</p> <p style="text-align: right;">✗</p>
<p>The stones are attached to the concrete base during manufacture under optimal controlled conditions. Perfect adhesion between the mortar-adhesive used for installation and the panel's base is verified and tested.</p> <p style="text-align: right;">✓</p>	<p>The stones are attached to the wall during installation using an adhesive mortar, without control over environmental conditions (dust, moisture, etc.).</p> <p>PROBLEMS: Gaps without adhesive may remain during installation so that part of the panel does not adhere. Breakage and falling may occur at any time.</p> <p style="text-align: right;">✗</p>
<p>The stones are joined using a continuous layer of mortar and the stones are attached by their back surface, which prevents the joints from being visible.</p> <p style="text-align: right;">✓</p>	<p>Joints are not visible.</p> <p style="text-align: right;">✓</p>

## STONEPANEL™ MODELS



STONEPANEL™ Multicolor thin set slate



STONEPANEL™ Black thin set slate



STONEPANEL™ Multicolor



STONEPANEL™ Nilo



STONEPANEL™ Nordic



STONEPANEL™ Black Slate



STONEPANEL™ Nordic vintage



STONEPANEL™ Orient



STONEPANEL™ Sahara



STONEPANEL™ Sylvestre



STONEPANEL™ Marina

## STONEPANEL™ - SPECIAL PIECES



### Solid corner

L-shaped natural stone panel made for installation on corners. The corner is built-in so installation is quick and easy.



### Solid corner for windows

L-shaped natural stone panel, with long end staggered and short end straight. Designed to accommodate junctions with windows.



### Straight end

These differ from the standard STONEPANEL™ panels because one of the two ends is straight. These have been created for walls without corners. Both short and long panels with one straight end are available.



### Double end

Natural stone panel with staggered ends, designed for installation on columns.

This concrete base does not extend all the way to the two ends.



### STONEPANEL™ Curved

These curved stone panels are adapted to circular facades. They are recommended for installation on surfaces less than 2 m in height.

TESTING AND CERTIFICATION

# SINTEF - NORWAY



**SINTEF Certification**

**No. 2563**

Issued: 01.10.2010

Cancelled: 20.05.2011

Valid until: 01.10.2015

Page: 1 of 3

SINTEF Building and Infrastructure confirms that

## Stonepanel® and Stonepanel® Sky

meets the provisions regarding product documentation given in Norwegian building regulations, with properties, fields of application and conditions as stated in this document

**1. Holder of the approval**

Cupa Materiales SA.  
Sierra Nevada 9  
Área Empresarial Andalucía  
E5-28120 Pinto Madrid  
Spain  
[www.cupamat.com](http://www.cupamat.com)

**2. Manufacturer**

Chuang Yi Stone CO. LTD, Yi County, Shandong, China

**3. Product description**

Stonepanel®, Fig. 1, and Stonepanel® Sky, Fig. 2, are panels made of natural stone bonded to a cement mortar base which is reinforced with a glassfibre mesh.

Stonepanel® Sky has, unlike Stonepanel®, an incorporated mechanical anchor of stainless steel 2,0 mm loop wire embedded into the concrete base for mechanical fixing to the base.

The panels are produced in 10 different versions by means of different rocks and dimensions as listed Table 1.

**4. Fields of application**

Stonepanel® and Stonepanel® Sky can be used as decorative cladding system on solid walls made of concrete, concrete sandwich elements, insulated light weight concrete masonry or brick masonry. The cladding system may be used both on new and existing buildings.

All the different panels can be used both outdoor and indoor.

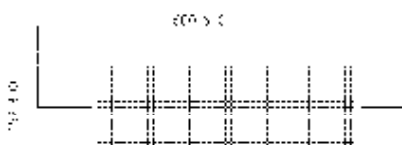
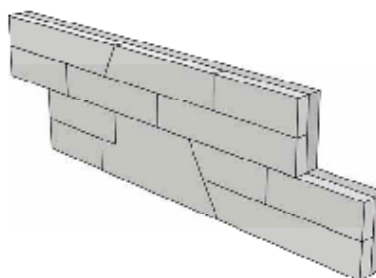
**5. Properties**

**Load-carrying capacity**

The anchor embedded in the concrete base of Stonepanel® Sky has a calculated pull-out design capacity of 0,64 kN.

**Properties related to fire**

Reaction to fire has not been determined.



**Fig. 1**  
Front and rear view of Stonepanel®, and a cross section of the panel

**Durability**

Freeze-thaw tests show that Stonepanel® and Stonepanel® Sky have sufficient frost resistance for outdoor exposure in Norway.

SINTEF is Norwegian member of European Organization for Technical Approval, EOTA, and European Union of Agreement, UEA/Eu

Reference: Appr. 3D0487 Contr. 3D1105

Subject: Claddings

**Head Office:**

SINTEF Building and Infrastructure  
P.O.Box 124 Blindern – NO 0314 Oslo  
Tel. +47 22 96 55 55 – Fax +47 22 69 94 38

e-mail: [byggjenst@sinif.no](mailto:byggjenst@sinif.no)  
[www.sinif.no/byggjenst](http://www.sinif.no/byggjenst)

**Trondheim:**

SINTEF Building and Infrastructure  
7465 Trondheim  
Tel. +47 73 59 30 00/33 90 – Fax +47 73 59 33 50/60

© Copyright SINTEF Byggtjenst

TESTING AND CERTIFICATION

**BBA - UNITED KINGDOM**

**Cupa Materiales S.A**

Sierra Nevada, 9  
 Area Empresarial Andalucía  
 28020 Pinto  
 Madrid  
 Spain  
 Tel: 00 34 916 919 236 Fax: 00 34 916 918 012  
 email: info@cupamat.com  
 website: www.cupamat.com



Agrément Certificate  
**10/4724**  
 Product Sheet 1

**CUPAMAT WALL PANELS**

**STONEPANEL AND STONEPANEL SKY**

**PRODUCT CODE AND SUMMARY OF CERTIFICATE**

This Certificate relates to Stonepanel and Stonepanel Sky, natural stone panels for use as a decorative cladding.

**AGRÉMENT 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
- regular surveillance of production
- formal three-yearly review.



**KEY FACTORS ASSESSED**

**Strength and stability** — the panels have sufficient strength to resist the negative and positive wind pressures likely to be experienced in the UK and have good impact resistance (see section 5).  
**Behaviour in relation to fire** — the panels are non-combustible and will restrict the spread of fire across the external surface of a building (see section 6).  
**Air and water penetration** — the system is not watertight but will restrict the ingress of rainwater to the supporting structure (see section 7).  
**Maintenance** — generally the panels do not require maintenance and are self-cleaning but removal of some types of mark may require specialist treatment (see section 8).  
**Durability** — the system has a design life in excess of 30 years (see section 9).

The BBA has awarded this Agrément Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 9 February 2010

*B Chamberlain*

Brian Chamberlain  
 Head of Approvals — Engineering

*G Cooper*

Greg Cooper  
 Chief Executive

The BBA is a UKAS accredited certification body — Number 773. 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.bba-certs.co.uk](http://www.bba-certs.co.uk)

Brochures can be obtained in which the validity and terms of use of this Agrément Certificate by either visiting the BBA website or contacting the BBA direct

British Board of Agrément  
 Bucknalls Lane  
 Conson, Watford  
 Herts. WD25 9BA

©2010

tel: 01923 665000  
 fax: 01923 665001  
 e-mail: [mail@bba.org.uk](mailto:mail@bba.org.uk)  
 website: [www.bba-certs.co.uk](http://www.bba-certs.co.uk)

## TESTING AND CERTIFICATION

# DIBT - GERMANY



Zulassungsstelle für Bauprodukte und Bauarten

Bautechnisches Prüfamt

Eine vom Bund und den Ländern  
gemeinsam getragene Anstalt des öffentlichen Rechts  
Mitglied der EOTA, der UEAtc und der WFAC

Datum: 29.05.2013      Geschäftszeichen: II 13-1.33.1-10901

**Zulassungsnummer:**  
Z-33.1-1090

**Antragsteller:**  
CUPA STONE S.L.  
Calle Matilde Coneas 14  
24404 PONFERRADA (LEÓN)  
SPANIEN

**Geltungsdauer**  
vom: 29. Mai 2013  
bis: 29. Mai 2018

**Zulassungsgegenstand:**  
Fassadensystem "Stonepanel" und "Stonepanel Sky" zur Anwendung als angemörtelte Außenwandbekleidung

Der oben genannte Zulassungsgegenstand wird hiermit allgemein bauaufsichtlich zugelassen.  
Diese allgemeine bauaufsichtliche Zulassung umfasst acht Seiten und vier Anlagen.





TESTING AND CERTIFICATION

**CSTB - FRANCE**

**Avis Technique 13/12-1177**

Annule et remplace l'Avis Technique 13/09-1062

*Eléments pour revêtement  
de murs intérieurs et  
extérieurs*

---

**Stonepanel  
Stonepanel Sky**

---

**Titulaire :** Société Cape Materiales SA  
Sierra Nevada, 9 (Area Empresarial Andalucía)  
E8-29320 Pínto (Madrid)  
Tél. : +34 91 691 92 36  
Fax : +34 91 691 80 12  
E-mail : fmondez.cape@capagroup.com  
Internet : www.capamat.com

**Distributeur :** Société Cape Pierres Distribution  
8 rue du Pont des Landes  
FR-78810 Coignières  
Tél. : 01 30 49 69 66  
Fax : 01 30 49 69 67

Commission chargée de formuler des Avis Techniques  
(arrêté du 21 mars 2012)

Groupe Spécialisé n° 13  
Procédés pour la mise en œuvre des revêtements

Vu pour enregistrement le 10 janvier 2013



Secrétariat de la commission des Avis Techniques  
CSTB, 84 avenue Jean Jaurès, Champ de Mars, FR-77447 Marne la Vallée Cedex 2  
Tél. : 01 64 68 42 82 - Fax : 01 60 05 70 37 - Internet : www.cstb.fr

## TESTING AND CERTIFICATION

# THERMAL SHOCK AND FREEZE-THAW



 <b>TPN</b> Tecnología de la Piedra Natural s.Lu.		<b>PRODUCTOS DE PIEDRA NATURAL</b>	
<i>Protocolo de ensayo</i>			
<b>DENOMINACION COMERCIAL: STONE PANEL</b>			
<b>Fabricante:</b> CUPAMAL s.l		<b>Fecha:</b> Julio 2011	
<b>Procedencia:</b> No facilitada		<b>Nº de Certifiendo:</b> 11033	
<b>ENSAYOS DE CARACTERIZACION</b>			
<b>ENSAYOS</b>		<b>RESULTADOS</b>	
Resistencia al hecho/destrozo (UNE-EN 12371)		Sin alteraciones después de 50 ciclos	
Resistencia al envejecimiento por choque térmico (UNE-EN 14065)		Sin alteraciones después de 20 ciclos	
<b>Conforme:</b>			
El director del Laboratorio:			
			

# CUPASTONE

The experts in Natural Stone

[www.cupastone.com](http://www.cupastone.com)



The logo features the words "STONE" and "PANEL" in a bold, orange, sans-serif font. Between them is a stylized icon of three parallel, slanted grey lines. Below "PANEL" is the text "by CUPA GROUP" in a smaller, white, sans-serif font. The entire logo is set against a dark grey rectangular background.

**STONE**  **PANEL**  
by **CUPA** GROUP

