QS™ Adhesive Solutions

VENTILATED FACADE
Bonding System

qs-adhesivos.es

INTRODUCTION

A ventilated facade is a construction system whose main objective is to thermally and acoustically insulate a house or building from the outside, by means of a coating separate from the supporting wall that allows air circulation inside.

This facade coating system is without a doubt the most energy-efficient one that currently exists.

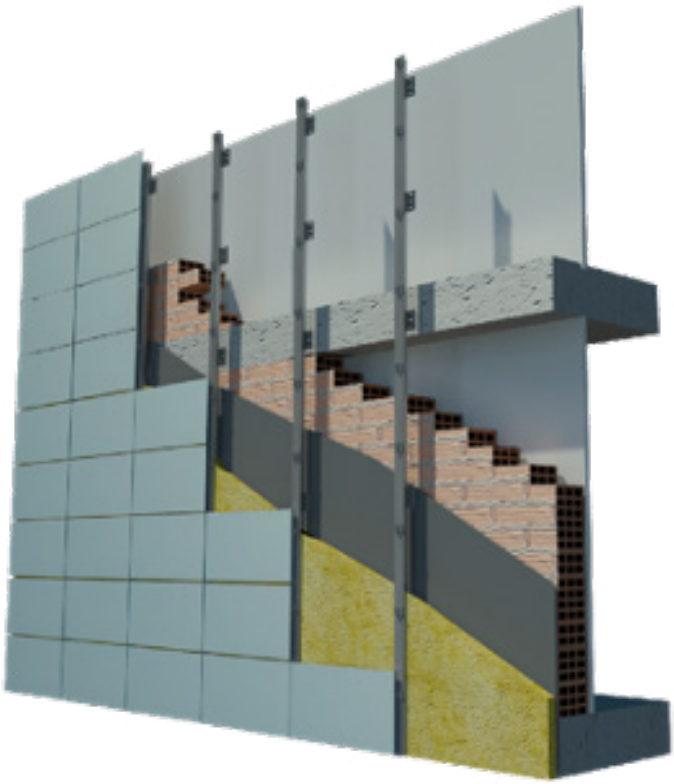
ELEMENTS OF VENTILATED FACADE

1.- SUPPORTING WALL INTRODUCTION

This is the building enclosure from which the different materials that make up the ventilated facade will be placed. This wall must support both the weight of the ventilated facade and the different stresses to which it will be subjected by external agents. The walls are generally made of brick, concrete or wood, although they also exist in other materials.

2.- SUBESTRUCTURE

This is the anchoring system to which the cladding panels will be fixed. It is basically made up of battens or profiles (screwed to the supporting slab or wall), which can be made of aluminum, wood, steel, etc.



3.- INSULATING LAYER

They are made up of thermal and acoustic insulation panels fixed to the supporting wall by means of studs. They are generally made of rock wool and mineral wool. This layer is continuous throughout the facade and prevents thermal bridges.

4.- AIR CHAMBER

This chamber is the result of the separation between the thermal insulation and the external cladding. Thanks to it, air circulation is generated (chimney effect) that allows a cool and dry environment inside. It also facilitates breathability, and the evacuation of water steam generated inside the home, which prevents condensation and the appearance of damp.

5.- OUTSIDE COVER

It is the exposed face of the facade and therefore, what we see when we look at a house or building. It is made up of panels of different materials such as: aluminum, composite, HPL panel, ceramic, porcelain stoneware, extruded stoneware, fibre cement or natural stone, among others. All of them specifically designed to be durable and resistant to the passage of time.

CHARACTERISTICS OF VENTILATED FACADE

• It is a continuous thermal insulation system on the outside that eliminates thermal bridges.

• Different barriers for sound waves that prevent noise insider.

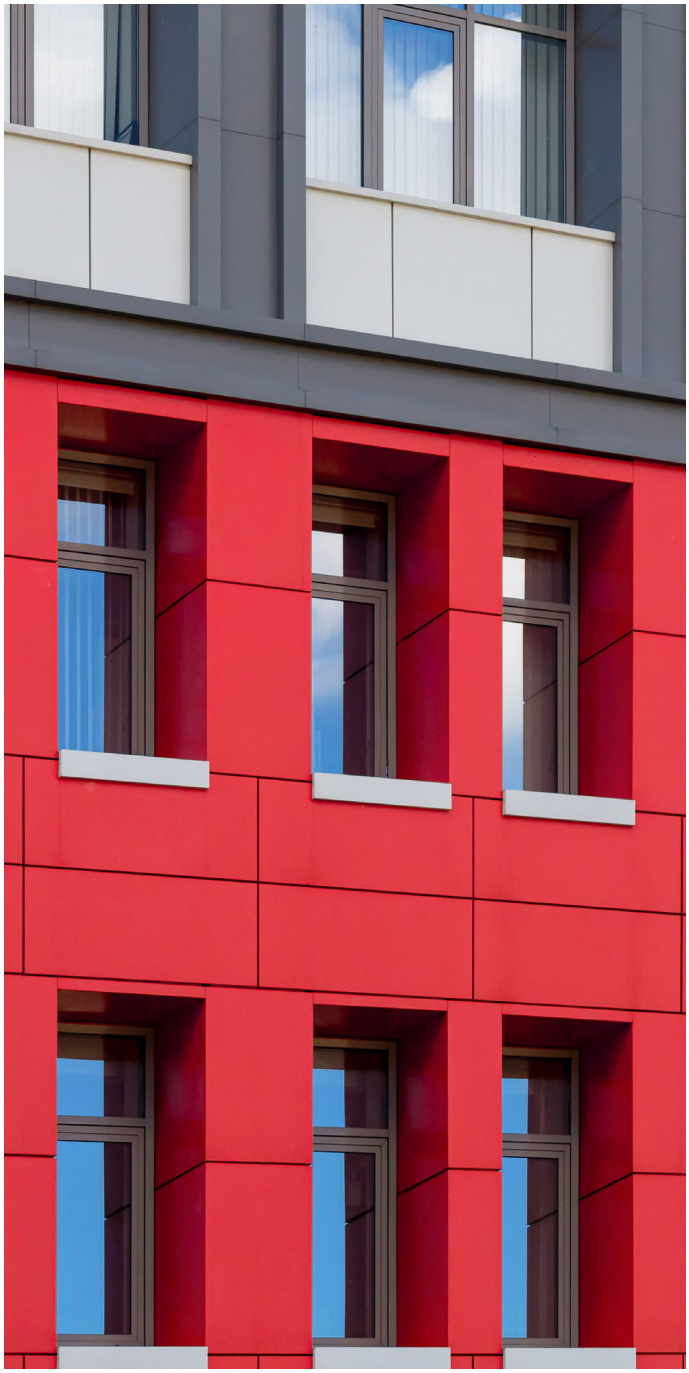
• A large part of the solar radiation is reflected by the outside cover.

• Air circulation through the chamber that eliminates hot air.

• Prevents condensation due to the great breathability it offers.

• Easy evacuation of water steam generated inside.

• Enhances the image of the buildingo.



EMAX
MS-PANEL SYSTEM

The EMAX MS-PANEL system is especially suitable for the “elastic bonding” of lightweight panels on ventilated façades. It can also be used for the installation of hanging panels indoors (those whose weight does not rest on the floor)..

The **EMAX MS-PANEL** system is made up of a series of products that make up the bonding system:

• **EMAX MS-PANEL ADHESIVE**
High modulus high performance elastic MS adhesive, free of isocyanates and solvents**.**

• **EMAX PANEL TAPE**: Double-sided PE foam tape. 3mm thick, 12mm wide. Regulates the distance between the profile and the panel to ensure the correct thickness of the system. Provides the initial grip necessary during the curing of the adhesive.

• **PRIMER 200 or 300**: Primers for porous and non-porous substrates, the use of the primer will vary depending on the nature of the panel or batten used. Although it is true that in some materials it would not be necessary to use primers, since these do not offer better results on them in the final application, they only increase the adhesion power and ensure the possible lack of cleaning. In any case, the use of primer always provides greater security to avoid problems of detachment due to inadequate cleaning of the panels or battens, so its use is always an additional security, for this reason, this guide is prepared with the application of primers on the various materials.

TECHNICAL DATA EMAX MS-PANEL SYSTEM

EMAX MS-PANEL SYSTEM	
Hardness (Shore Å)	55 ± 3
Modulus (100%)	1.8 – 2.0
Tensile Strength (Mpa)	3.8 – 4.0
Packaging Options	CR 290ml BS 600ml
Service Temperature Resistance	-40 a +90
Color	White

EMAX PANEL TAPE	
Thickness	3mm ± 10 %
Width	12mm
Roll Length	20m
Color	Black
Presentation	34 rolls per box

PRIMER 200 / 300	
Content	950ml
Packaging	Aluminum Bottle
Color	Transparent
Presentation	1 unit

EMAX MS PANEL SYSTEM APPLICATION

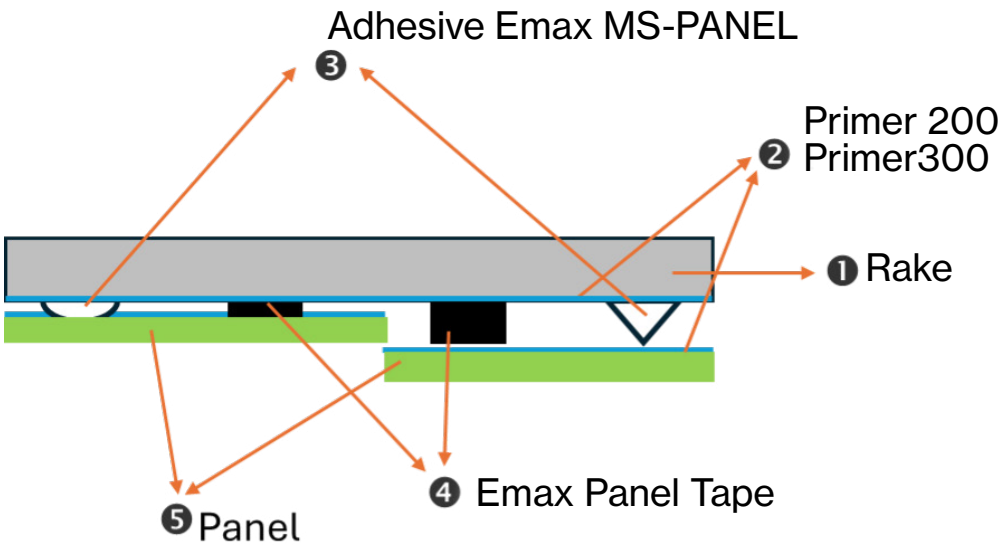


Figure 1. System Components

Elastic bonding of panels (wood, phenolic, fibre cement, aluminum, other materials) will be carried out on wooden battens, aluminum or other materials, previously mechanically fixed to the support. Always carry out prior adhesion tests with the battens and panels or consult our Technical Department.

Preparation of battens:

A) Wooden battens:
Sand lightly and then remove dust. Once clean, apply a layer of PRIMER 200 to achieve a more compact bonding surface. Wait about 15 minutes without putting anything on top.

B) Metal battens:
Thorough cleaning with Acetone, MEK or alcohol, using disposable cellulose paper. Wait about 15 minutes, apply PRIMER 300, allow to dry for about 30 minutes.

Treatment of panels:

C) Porous panels (fibre cement, wood):
Sand lightly and remove dust. Once clean, apply a coat of PRIMER 200 to achieve a more compact bonding surface. Wait about 15 minutes without putting anything on top.

D) Other panels:
Clean the area to be bonded with Acetone, MEK or alcohol, using disposable cellulose paper. Wait for about 15 minutes, apply PRIMER 300, and allow to dry for about 30 minutes.

Application TAPE EMAX PANEL:

The double-sided tape EMAX PANEL TAPE should be placed on the clean or primed battens, as appropriate, after the waiting time indicated in each case has elapsed.

For intermediate and end support battens, where only one panel rests on it, place a strip in the center of the batten, and for support battens where two adjacent panels meet at the ends and, therefore, both panels must rest on it, place two parallel strips in the center of the batten, separated by about 6-8 mm. Press the entire surface of the tape so that it adheres well to the batten. Do not remove the protective paper from the top of the tape until the moment of placing the panel, to avoid it becoming filled with dust.

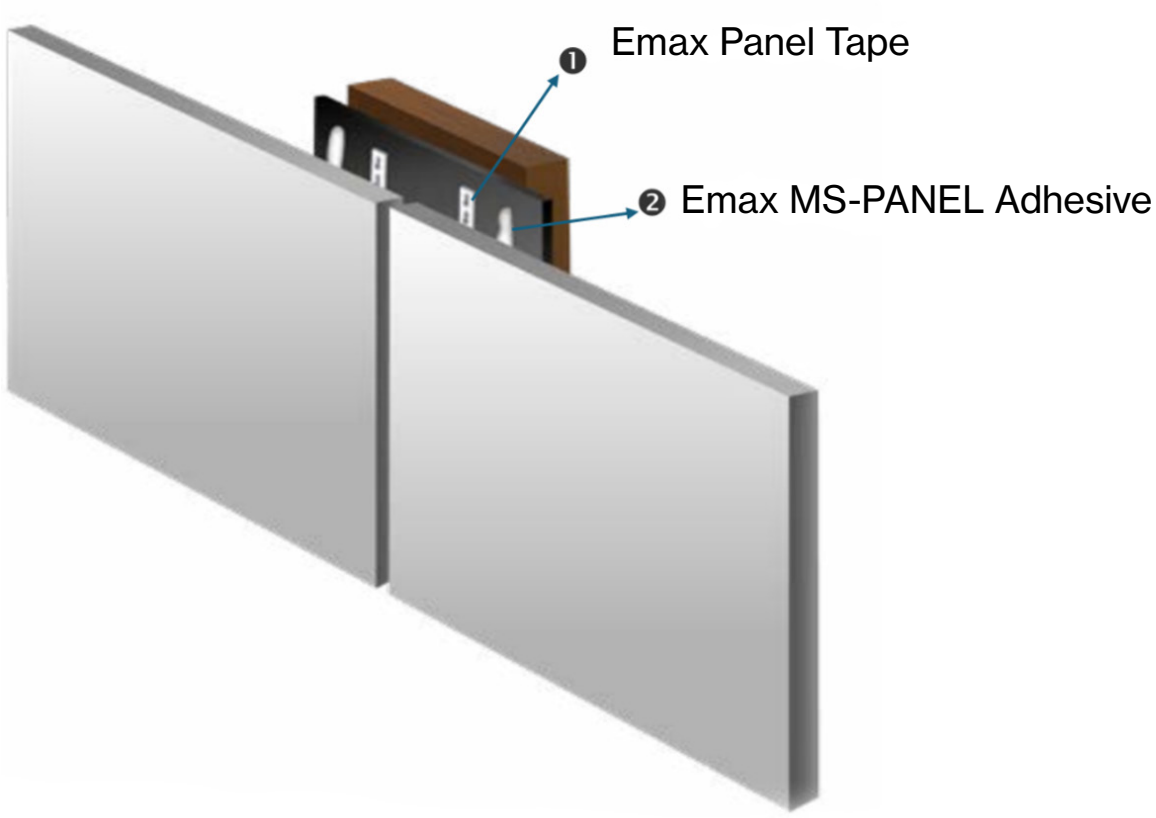


Figure 1. Example rake with extreme support, where are found two panels.

Application of EMAX MS-PANEL ADHESIVE

Apply a triangular bead to the sides of the batten using the pre-cut 8 x 10 mm tube, perpendicular to the support, leaving the double-sided tape in the center (see figure 1).

Fixing the panel:

Remove the protective paper from the double-sided tape and apply the panel within ten minutes after applying the EMAX MS-PANEL adhesive. Place the panel on the support, but without touching the adhesive. When it is in the correct position, press firmly using the suction cups.

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Tlf.: +34 966 735 506
www.qs-adhesivos.es
Camino de la Sierra, 34
03370 Redován (Alicante) Spain

MADE IN SPAIN