



External Thermal Insulation Solution

we
care

What is ETICS

Insulation has become recently the most important feature that contributes to our comfort and our home's overall energy efficiency. Weber provides thermal insulation solution for different segments residential & non-residential buildings. The objective is to provide comfort and well-being in each of our living places, save energy and reduce electricity bills.

Weber's External Thermal Insulation Composite System (ETICS) ensures thermal protection for your building without losing internal spaces by providing double solution of decoration and insulation with no thermal bridges.



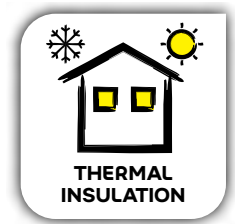
ETICS contribution to green buildings:

By testing the system according to international standards, Weber ETICS meets Middle East regulations and specifications complying with ETAG and European standards. Accordingly, weber ETICS answers green building, and Estidama regulations, in addition to local governments' legislation and meet the specifiers' requirements.

Main benefits of Weber ETICS

1- Improve thermal comfort

- Excellent thermal performance: Thermal comfort is the feeling of cool temperature in hot climate and vice versa.
- Eliminates thermal bridges between structure and blocks or windows.



2- Economical & Energy saving

- Saving energy consumption and up to 40% of your electricity bills.
- The external insulation system provides a gain of internal living spaces.
- Reducing greenhouse gas (CO2) emissions from heating and cooling.



3- Condensation inhibiting

Weber ETICS offers the best solution for humid countries and regions by providing a water condensation inhibitor technology feature to the system avoiding the moisture to penetrate and condensate inside the protected wall.



4- Fire resistance

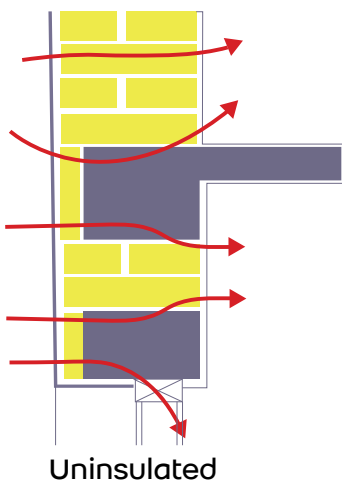
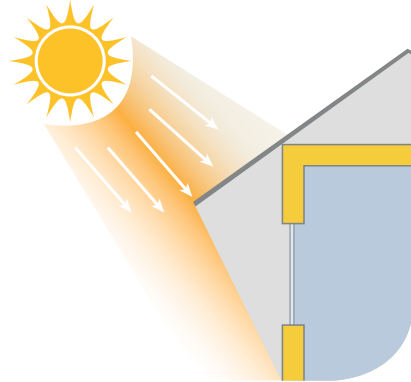
The aim of fire protection for buildings is to save life of occupants and limit as much as possible any fire-related damages to their health. Weber insulation mineral wool is tested according to European standards and classified as A1 fire rated.



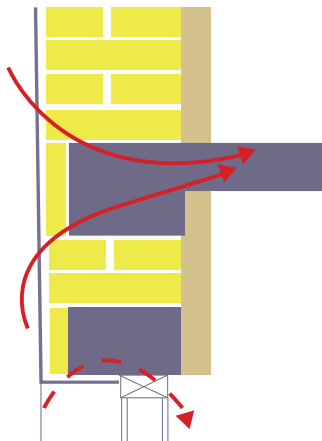
Main benefits of Weber ETICS

Protect

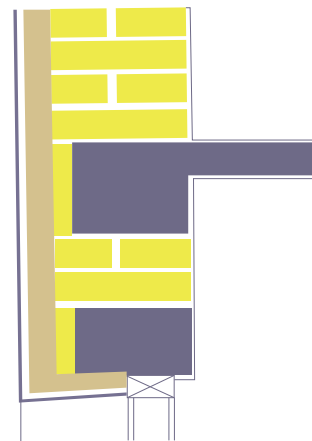
- Best thermal insulation performance against outside hot and cool temperatures
- Acoustic property and resistance to external climate conditions impacts.
- The higher performance of Weber ETICS is reached by avoiding thermal bridges in the building which leads to the best thermal insulation and U-value.



Uninsulated



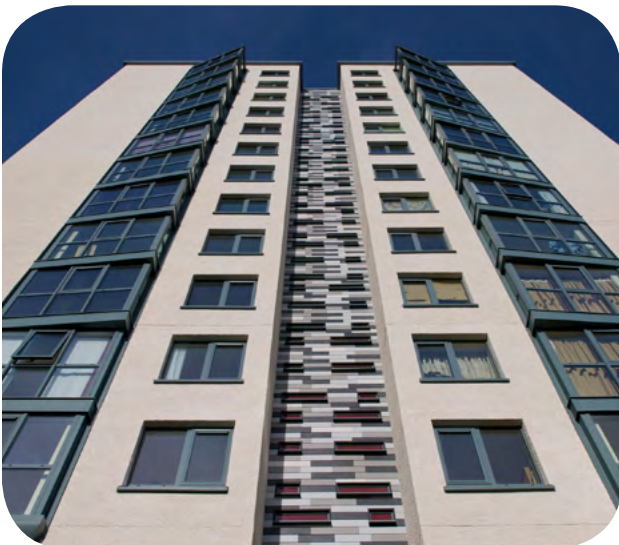
Interior insulation



Exterior insulation

Decorate

in addition to the thermal performance, Weber provides decorative solutions, aesthetical value depending on the final finishing required.



Webertherm MW system components

Easy and practical to use

- Insulation without reducing the interior area of the building
- Preventing mould growth
- 2 operations in one solution: Insulation + renovation /or façade decoration
- High compressive strength
- External work during renovation, consequently keeping the interior building clean and free.

Substrate/masonry (concrete, bricks, timber frame etc)

1 webertherm glue

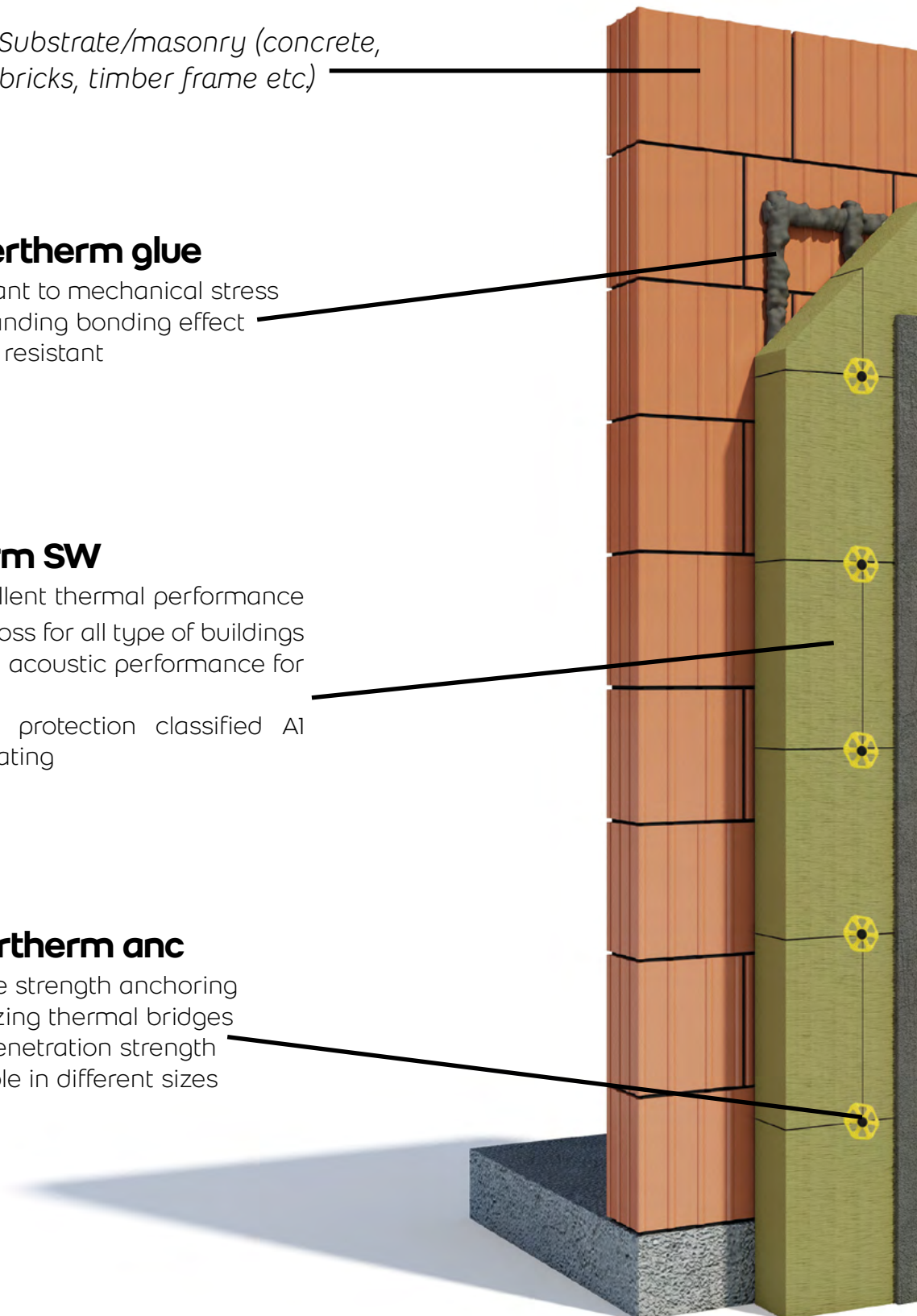
- + Resistant to mechanical stress
- + Outstanding bonding effect
- + Water resistant

2 webertherm SW

- + Provides excellent thermal performance reducing heat loss for all type of buildings
- + Provides good acoustic performance for better comfort
- + Effective fire protection classified A1 Euroclass fire rating

3 webertherm anc

- + Durable strength anchoring
- + Minimizing thermal bridges
- + High penetration strength
- + Available in different sizes



تقنية الحد من التكاثف



NO-CONDENSATION
TECHNOLOGY

Due to its condensation inhibiting feature, Weber ETICS is suitable for humid and hot countries

4 webertherm base

- + Elastic
- + Crack-proof
- + Resistant to mechanical stress
- + Outstanding bonding effect
- + Water resistant

5 webertherm mesh

- + High mechanical strength
- + Excellent dimensional stability
- + Compatible with all major facade systems

6 weberpas 300 PR

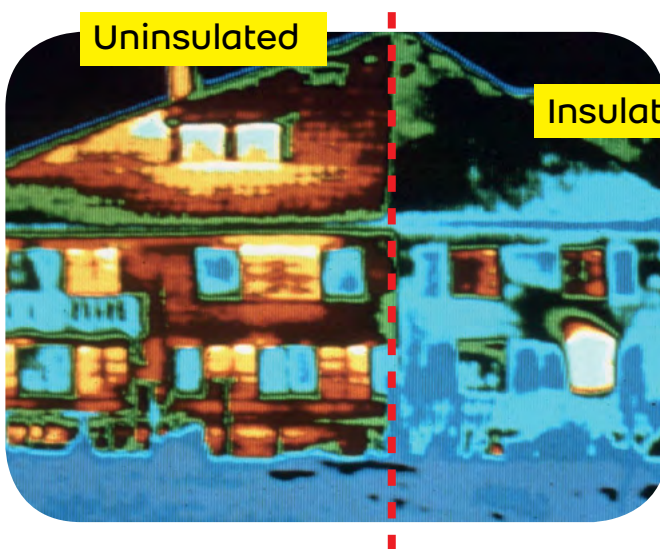
- + Acrylic primer providing excellent adhesion

7 weberpas deco

- + Available in different textures and colors (refer to page 5 of the brochure)

Thermal Conductivity & U-value

The building's external wall components have different thermal properties that interact together to define the heat transfer with the external environment. One of these properties is the thermal conductivity, also called lambda (W/m.K), which defines the heat transmitted in a unit time through a unit thickness of the material. A low thermal conductivity indicates a good thermal insulating material. A thermal insulating system is characterized by its thermal transmittance or U-value. A U-value is a measure of thermal loss (heat or cool) in a building element such as a wall, a floor or a roof.



$$U_n = 1 / R_1 + R_2 + R_3...$$

$$R_n = d/\lambda$$

R – thermal resistance of the construction

Material	λ : Thermal Cond. (W/m K)	Thickness (mm)	R: Thermal Resistance (m ² K/W)
Internal Plaster	0.5	15	0.0300
Solid Block	0.34	150	0.441
webertherm glue	1.2	5	0.0042
webertherm SW	0.033	100	3.0303
webertherm base	1.2	5	0.0042
weberpas prime	1	0	0.0000
weberpas deco	0.6	2	0.0033
	Total	277	3.5131
	U value	0.2846	W/m²K

webertherm anc

It is a Thermal Anchor with high penetration strength for all types of thermal insulation boards, suitable for solid and aerated blocks, brick and concrete walls. **webertherm anc** has a high pull-out strength for a higher security of the system and low thermal conduction value to avoid thermal bridge.

Depending on the anchors resistance and the required load capacity, weber offers two types of anchors:



webertherm anc P

The anchor is made of PVC sleeve. It can be applied on the wall such as clay brick, hollow blocs, normal concrete, concrete blocks.

Characteristics:

Type A

Normal weight concrete C 12/15 acc. to EN 206-1 0.6 kN

Type A

Normal weight concrete C 16/20 - C 50/60 0.6 kN acc. to EN 206-1

Type B

Solid lime sandstone (KS) acc. to DIN EN 106 0.6 kN

Type C

Vertically perforated clay bricks (Hlz) acc. to DIN, 0.5 kN



webertherm anc S

The anchor is made of PVC sleeve with steel screw. It can be applied on the wall such as clay brick, hollow blocs, normal concrete, concrete blocks, light-concrete or aerated concrete.

Characteristics:

Type A

Normal weight concrete C 12/15 acc. to EN 206-1 0.9 kN

Type A

Normal weight concrete C 16/20 - C 50/60 0.9 kN acc. to EN 206-1

Type B

Solid lime sandstone (KS) acc. to DIN EN 106 0.9 kN

Type C

Vertically perforated clay bricks (Hlz) acc. to DIN, 0.6 kN

Fixing anchors:

Drilling the anchor holes

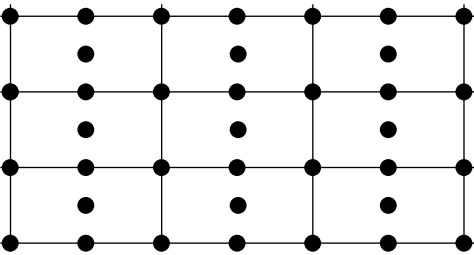
- Only start drilling after the adhesive has hardened sufficiently.
- Use drill with the diameter stated on the anchor.
- Drilling depth = anchor length + 10 to 15 mm.
- The minimum distance of the anchors from building edges and joints should be considered (generally 100 mm)

The following tables show the number of anchors to be fixed per each 1 m² taking into consideration the load capacity of the anchor to be used, the height of the building and the wind speed:

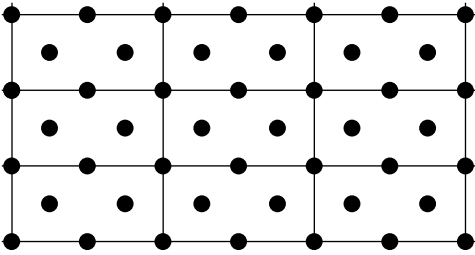
webertherm anc P				webertherm anc S			
<div> <div> <div>wind speed (km/h)</div> <div>Height (m)</div> </div> <div> <div>150 - 155</div> <div>156 - 170</div> <div>171 - 190</div> </div> </div>				<div> <div> <div>wind speed (km/h)</div> <div>Height (m)</div> </div> <div> <div>150 - 155</div> <div>156 - 170</div> <div>171 - 190</div> </div> </div>			
0 - 10	5	5 - 6	7	0 - 10	3	4	4 - 5
11 - 14	5	6	8	11 - 14	3 - 4	4	5
15 - 18	5 - 6	7	9	15 - 18	4	4	6
19 - 21	6	7	9	19 - 21	4	5	6
22 - 25	6	7	9	22 - 25	4	5	6

Note: for buildings higher than 25m, it is recommended to consult Weber technical department.

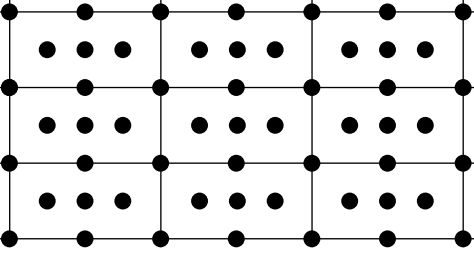
The following diagrams show the repartition of anchors once the number is confirmed for **webertherm SW** panel size of 120 x 60cm



Number of anchors per panel: 3
Number of anchors per m²: 4.2

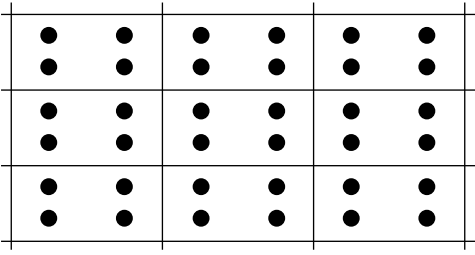


Number of anchors per panel: 4
Number of anchors per m²: 5.5



Number of anchors per panel: 5
Number of anchors per m²: 6.9

In case anchors are fixed inside the panels:



Number of anchors per panel: 4
Number of anchors per m²: 5.5

Type of finishing



Paste acrylic renders:
weberpas deco 350



Mineral-organo dry renders:
weberpas deco 355



weberpas deco 310*

Acrylic ribbed finish coating

weberpas deco 310 is a ready to use acrylic ribbed finish coating with a selection of graded quartz sand and fillers

Benefits

- Water resistant
- Chemical resistant
- Easy to apply



weberpas deco 350*

Acrylic textured coating sanded finish

It is an acrylic sanded finish coating. It includes a special selection of graded quarts, sand and fillers, and special additives.

Benefits

- UV resistant
- Weather resistant



weberpas deco 355*

A ready to use high performance organo-mineral based wet render

weberpas deco 355 is a ready-to-use high performance organo-mineral-based wet render made of acrylic dispersion for stabilisation, marble sands, high performance pigments UV stable and additives.

Benefits

- Weatherproof and good water repellency
- Mineral aspect with UV resistant

* Primer to be used **weberpas PR 300**

** Primer to be used **weberpas PR 339**

Accessories

Weber offers a complete thermal insulation system including all accessories related to provide the best system performance.



webertherm anc spiral

Fasten light to medium elements permanently to the façade



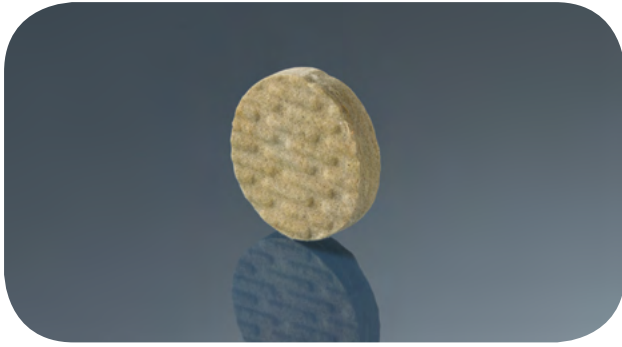
webertherm ISO Corner

Can be integrated into the ETICS at early stage



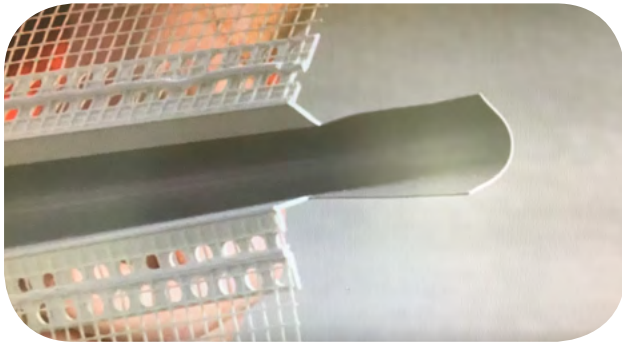
webertherm washer anc

Increasing capacity to resist to high loads.

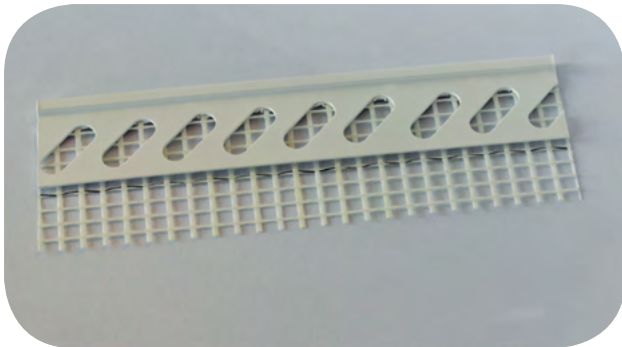


webertherm anc cap

Sealing gaps while fixing anchors

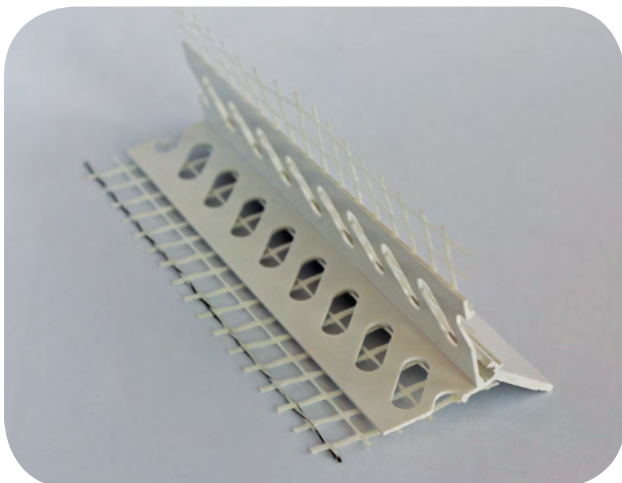


Joint profile



Mesh profile one wing

Can be integrated into the ETICS at early stage



Corner mesh profile

Around the openings

Project References

Four Seasons hotel - Abu Dhabi



Nueva carpeta - Spain



Bevaix - Switzerland



Binzmühlepark - Switzerland

