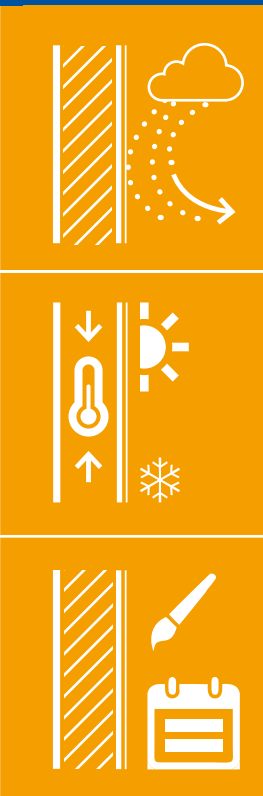


maxit[®]solar

Protects what is valuable to you



- ✓ **long-lasting protection against algae**
- ✓ **heat-regulating energy-saving effect**
- ✓ **superior protection of the building structure**

maxitsolar ensures that facades remain intact and beautiful for a long time.



The facade is the hallmark of a building. It provides protection, represents the building and gives it an individual touch.

With our **maxitsolar** facade system, we offer renders and paints that are energetically sensible and also help optimise the structural physics of the building shell, minimise running costs and maintain the value of the property.

Developed as an energy-saving product, maxit solar has been perfected over the last 12 years and become a top-quality facade system. Thanks to the innovative composition featuring hollow glass microspheres that largely replace standard chemical and mineral additives, **maxitsolar** facade renders and paints combine five essential quality properties:

- ✓ long-lasting resistance
- ✓ ecologically harmless and non-hazardous to health
- ✓ energy-saving effects thanks to heat-regulating properties
- ✓ long-lasting protection of the building structure
- ✓ durable brilliancy for new buildings as well as renovation and redecorating projects

The result speaks for itself: facades that remain visually appealing for many years.



For greater value retention.

Whether detached houses or multi-family dwellings, historic buildings, commercial or industrial sites – facade engineering with **maxitsolar** facade system is the key technology when it comes to creating new buildings and refurbishment projects which hold their value.



Developed to meet individual requirements.

The **maxitsolar** facade system provides the answer to the needs of building owners with high standards in terms of building quality, individuality and ecology. It combines individual products to form a perfectly coordinated complete system.



Scientifically proven and tried and tested in practice.

As suppliers for building materials, we develop practical solutions for building owners, architects and contractors. The products of the **maxitsolar** system are thus based on the latest findings of building physics and many years of experience in facade engineering.



Ensures that humidity, dirt and algae stand no chance.

Rain, sunshine and cold weather take enormous toll on the facade exterior over the years. Even small cracks in the facade surface allow moisture to penetrate, which may severely damage render and paint. Dirt contamination and the formation of algae also accelerate the ageing process. In addition to turning shabby, the facade also often requires extensive maintenance.

With our **maxitsolar** paint and render system, we have developed a permanent solution that counteracts weather-related decay and deterioration of buildings and provides lasting protection against environmental influences, ensuring your building remains intact and beautiful for a long time.

maxitsolar products provide excellent protection and ensure clean and dry facade surfaces that are free of algae and require no maintenance for a long time.

Facade exposed to environmental influences





maxitsolar for natural algae control.

Numerous test series and the experience gained in the last 12 years have shown that **maxitsolar** facade renders and paints provide significantly longer protection compared to standard products. Thanks to the hollow glass microspheres integrated as lightweight mineral aggregates, humidity, mould and algae infestation do not stand a chance.

Standard facade



after 1 year



after 6 years

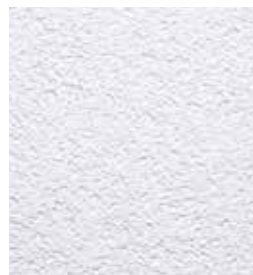


after 10 years



after 12 years

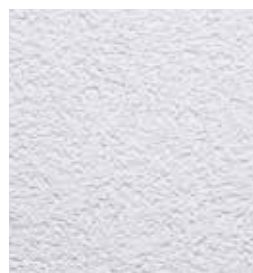
Facade with maxitsolar



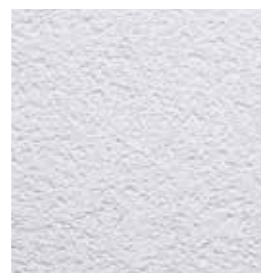
after 1 year



after 6 years



after 10 years



after 12 years

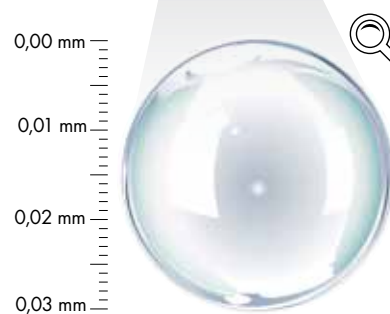
The protective membrane for your facade.

Silicone resin renders and paints currently provide the most efficient environmental protection for facade coatings thanks to their excellent properties in terms of building physics.

maxitsolar is the cutting-edge combination of silicone resin render and paint with a high percentage of ultra-fine hollow glass microspheres. The hollow glass microspheres embedded in a silicone resin matrix create a smoother, microporous and repellent surface. In the event of rain, droplets hitting the surface along with dirt particles are naturally rinsed off the facade (resistant against pelting rain with low contamination tendency).

The micro-fine molecule structure helps maintain a balanced temperature and humidity ratio. Similar to a breathable rain jacket, water vapour migrates from inside to outside, thus preventing condensation water from accumulating inside.

maxitsolar thus meets all the basic requirements for a long-lasting proper functioning of the facade.



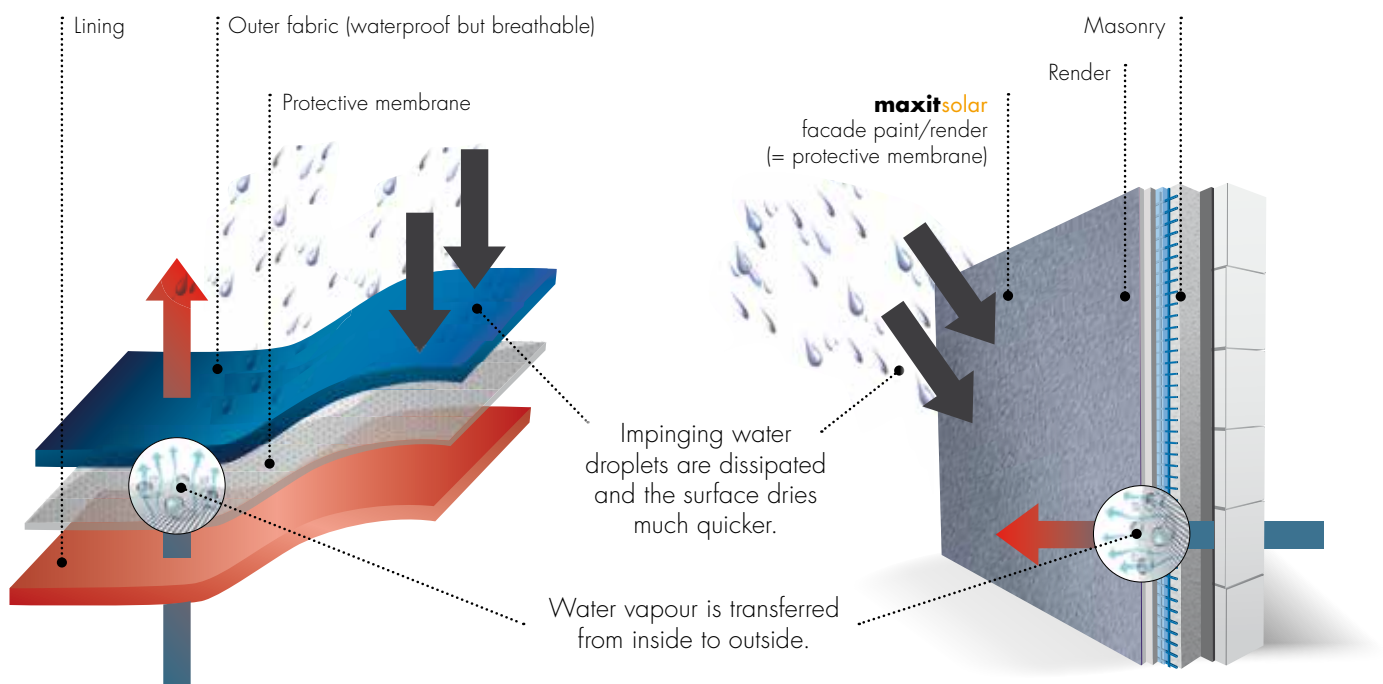
Single hollow glass microsphere, enlarged approx. 1,100 times



maxitsolar protects your facade according to the same principle as that of a modern functional jacket.

Similar to a functional jacket, moisture, e.g. dew or rain, hitting the surface is immediately dissipated thanks to the molecular structure of **maxitsolar**, while water vapour can permeate from inside to outside and vice versa.

The operating principle of **maxitsolar** compared to a functional jacket:



Layer structure diagram of a functional jacket

Diagram of wall structure with **maxitsolar**

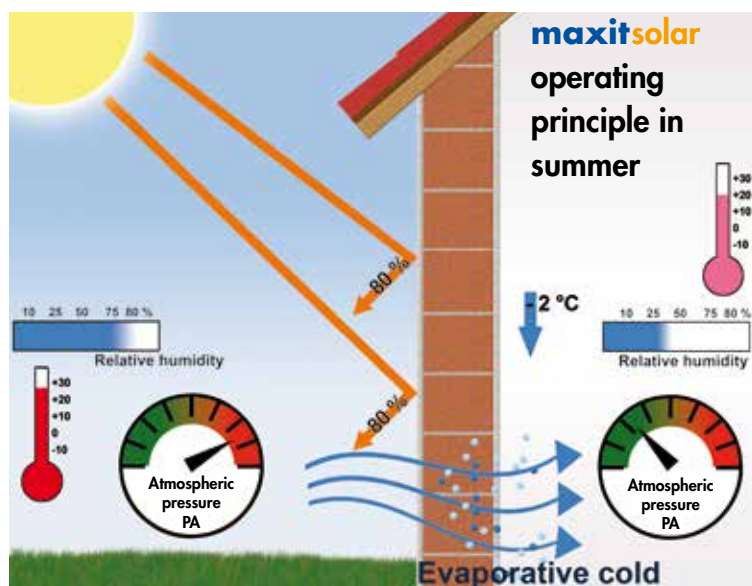
Heat-regulating properties with energy-saving effect.

Warm and dry building materials insulate much better and can thus help save thermal energy. The hollow glass microspheres with insulating effect according to the thermos flask principle integrated in **maxitsolar** coatings contribute noticeably to a balanced temperature and moisture ratio in buildings.

Cooling effect in summer

In addition to its insulating properties, the effect of the ultra-fine hollow glass microspheres also depends on the angle of the sun rays hitting the facade. When the sun is high in the summer, the sun rays hit the microspheres at a steep angle and reflect the heat of the masonry. The high outside atmospheric pressure and low inside atmospheric pressure (water vapour partial pressure) combined with different humidity levels ensure a natural pressure compensation, drawing water vapour from the outside to the inside. The humidity evaporates, creating evaporative cold.

Consequently, the surface temperature on the interior wall decreases.



Heat absorption when the sun is high



Hydrophilic (permeable) for water vapour, hydrophobic (repellent) against pelting rain

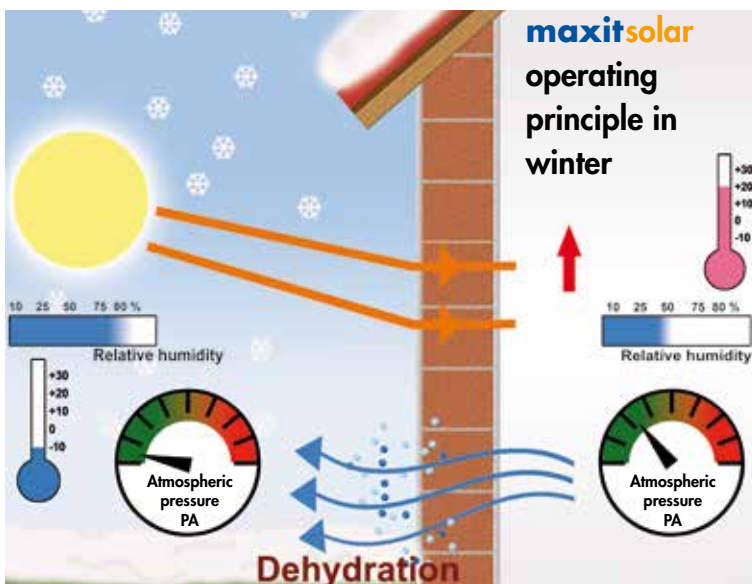




Lower facade surface tension thanks to surface temperature regulation according to the weather or time of day.

Warming properties during winter

When the sun is low in winter, the effect is the opposite of that in the summer. The hollow glass microspheres absorb the sun rays hitting the surface at a low angle and transfer solar heat to the masonry. Low outside atmospheric pressure and high inside atmospheric pressure (water vapour partial pressure) in combination with different humidity levels ensure natural pressure compensation, drawing water vapour from the inside to the outside. The building structure is thus dehumidified and the heat storage capability significantly increased. Consequently, the temperature of the interior wall surface increases – the room cools off more slowly



Heat absorption when the sun is low



Hydrophilic (permeable) for water vapour, hydrophobic (repellent) against pelting rain



Natural, ecological, glass – renders and paints with a health aspect.

Many manufacturers of facade renders and paints promise algae-free and clean facade surfaces and often resort to chemical additives such as algaecides and fungicides that are not encapsulated. When exposed to weather, high concentrations of these active agents are often washed out at the beginning. Once they are used up, the facade surface is no longer protected.

maxitsolar facade renders and paints prevent this risk for the environment and health by using a low dosage of encapsulated film preservatives such as algaecides and fungicides against algae and fungal contamination.

Glass, a natural building material, makes this possible and is the main component of all maxit solar products in the form of hollow glass microspheres. They help maintain a smooth and dry surface with a pH value in the alkaline range.

The insulating effect of the hollow glass microspheres changes the dew point and ensures a much quicker transfer of moisture, thus preventing the growth of algae, fungus and other microorganisms in a purely physical rather than chemical manner.





maxitsolar reduces the use of algaecides and fungicides for facades to an acceptable level.

Where standard facade construction products resort to chemical additives for algae and fungus-free surfaces, **maxitsolar** uses glass in the form of hollow glass microspheres, which is environmentally sound and poses no health risk, as a long-term effective paint and render component.

Standard facade paint containing algaecides and fungicides



Standard facade paints contain algaecides and fungicides that are not encapsulated and are thus washed out of the facade, leaking into the environment.

Facade with **maxitsolar**



maxitsolar products only require a low dosage of algaecides and fungicides that is acceptable for the environment and health thanks to a pH value in the alkaline range > 8.5 which prevents algae and fungal growth.

The all-rounder among facade renders and paints.



✓ Permanent protection against moss and algae infestation

Microorganisms like mould, algae and organic deposits find no breeding ground thanks to optimal drying behaviour.



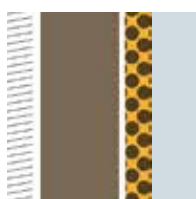
✓ Ecological

Chemical additives are reduced to an acceptable level thanks to the ecological building material glass in the form of hollow glass microspheres.



✓ Low contamination tendency

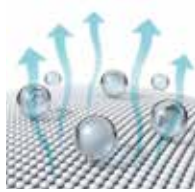
The surface structure guarantees long-lasting colour fastness of the paints. The microporous surface prevents dirt particles from accumulating.



✓ No cracks thanks to flexible paint film

The slightly moveable hollow glass microspheres fill fine crack structures of up to 0.5 mm and ensure a permanently low surface tension.

maxit[®]
facade system
render & paint



✓ Protects the facade like a functional jacket

Humidity combined with dirt particles are dissipated from the facade while water vapour permeates.

solar



✓ Saving energy with heat regulation

Thanks to a vacuum content of ca. 40% in the product, the render or paint provides excellent heat-insulating properties.



✓ Superior properties in terms of building physics

maxitsolar facade renders and paints support the drying behaviour of the building construction and have a dehumidifying effect.



Overview of the **maxitsolar** render & paint facade system.

The properties of **maxitsolar** develop their full potential when combined with the top quality **maxit** building products for facade structures and thus ensure maximum durability.

Application on existing facades

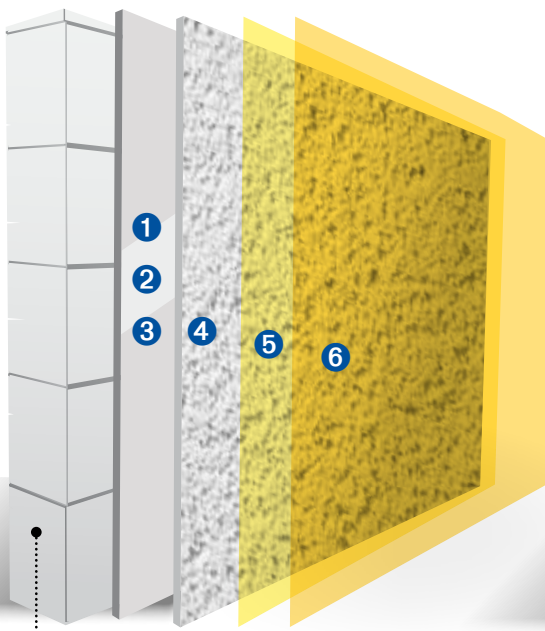
maxitsolar facade renders and paints are perfect for application on all stable and professionally prepared mineral substrates.

Application on new facades

The application of **maxitsolar** facade renders and paints is easy, requiring standard workmanship skills. For new buildings with monolithic wall design, **maxitsolar** basecoat, facade filler, decorative render and facade paint are ideal for a temperature- and humidity-regulating facade system.

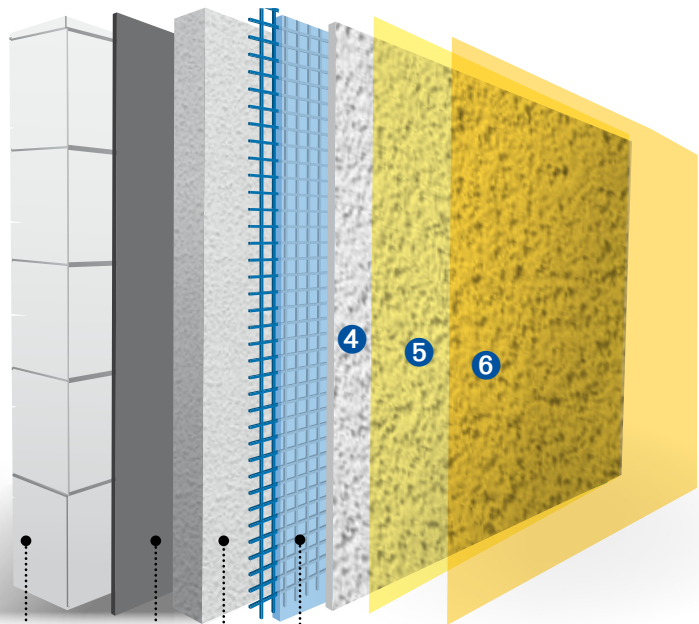
The individual components of the **maxitsolar** system:

- 1 **maxit solar basecoat**
Lime cement-fibre light render
- 2 **maxit solar facade filler**
Pale, fibre-reinforced refurbishment mortar
- 3 **maxit solar primer**
Quartz-filled primer
- 4 **maxit solar render**
Decorative render
- 5 **maxit solar paint primer**
Primer for application before solar paint
- 6 **maxit solar paint**
Facade paint based on silicone resin in any colour (inorganic pigmentation)



Masonry

Old masonry



Masonry Adhesive

Reinforcement mortar
with reinforcement mesh

Insulating board

Masonry with thermal insulation composite system

For more information see the following brochures or
www.solarfarbe.de



maxit solaren
Exterior and refurbishment paint



maxit solance
Interior paint

maxit süd

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