

# Protecting the aesthetics of a historic building



Specialist paints incorporating 3M™ Glass Bubbles have been used to sympathetically renovate a villa set in the protected area of Sóller, Mallorca.

In contrast to new buildings where there are strict requirements around energy efficiency, when it comes to renovating existing properties - especially those in protected areas - the focus is on aesthetics.

The municipality in Sóller has strict requirements when it comes to renovating historic buildings, such as Casa Escondida, and this includes specifying the colour of the paint used on the exterior, which has to be a natural tone.

Other regulations to protect the aesthetics of old buildings in the area cover the preservation of existing stone walls and, for example, the colour of the shutters.

In addition to these visual aspects of a renovation, protection of the environment and natural resources are also a factor. These days, innovative sustainable solutions are increasingly being requested by discerning clients; for example, to act as a barrier against solar radiation and to reduce condensation, preventing the formation of mould.

When it came to choosing the right paint for the renovation of the villa, architect Roland Weber turned to the Solance and Solar range produced by German paint manufacturer Maxit. As well as providing a large pallet of natural colours, the exterior paint has special properties that makes it able to deal with extreme humidity and high solar irradiation thanks to the addition of 3M™ Glass Bubbles.





These tiny microspheres reflect solar infrared radiation, slowing down the rate at which the building heats up. This helps to keep the interior cooler in the summer months and can reduce energy use and CO<sub>2</sub> emissions if the building has air conditioning.

Says Roland: “Energy saving is a very important issue. It is both a personal concern for our customers, who are very aware of the environment, and they also want to make savings in energy costs by reducing air conditioning in summer and heating in winter.”

The use of 3M™ Glass Bubbles in the interior paint helps to significantly slow down the build-up of condensed humidity and consequently the forming of mould. This is a common problem when renovating old buildings, particularly when new windows are fitted that stops air from circulating and the properties are not used all year round.

Roland adds: “We have extreme humidity on site and a very high solar irradiation. This is a challenge for buildings, especially those not well ventilated and used as holiday properties. For this reason, we are very interested to see how the Solance interior paint used can slow down the condensation of moisture and thus prevent the formation of mould.”

A key element of the renovation project was protecting the natural, old stone façade of Casa Escondida, so re-plastering was not an option. Being able to simply apply a paint solution containing additional properties was a major benefit, although using a professional painter is recommended.



### The property

Casa Escondida in Sóller, Mallorca.



### Challenge

Find an external paint in the colour pallet specified by the municipality in Sóller that also reflects solar infrared radiation. Identify an interior paint that reduces condensation and the build-up of mould.



### Solution

Maxit Solance and Solar were chosen for their unique properties and wide choice of colors.



### Insight

This unique formulation incorporates 3M™ Glass Bubbles to provide a high solar reflectance in the external paint and the internal paint reduces condensation so that walls are less susceptible to the growth of mould.



### Why 3M™ Glass Bubbles

These 0.1 mm microspheres made from borosilicate glass are hollow and lightweight, spherical and strong, provide special properties and are durable and stable.

“I think it's a high-performance product where the price is justified by the additional properties.”

*-Roland Weber,  
Architect, Bureau DUO Sóller,  
Mallorca, Spain*



### Shortlisted for the Deutscher Zukunftspreis Award

Dry Mortar incorporating 3M™ Glass Bubbles was shortlisted for the Deutscher Zukunftspreis Award – the German President's Award for Innovation in Science and Technology dedicated to scientists and their innovations that have both economic potential and create jobs.

### Supporting the EU Renovation Wave

3M™ Glass Bubbles provide finished products like exterior and interior paint with a range of properties, such as increased insulation or solar heat reflection capabilities. This means that they can help to reduce energy consumption, supporting the EU Renovation Wave campaign to refurbish older buildings and make them more sustainable.



“As architects, we are always looking for innovative materials. As the façade of the building could not be plastered, we had to find an alternative solution to deal with extreme humidity of 60 - 85 % on site and very high exposure to solar irradiation. On previous projects we have added chemicals to the paint to reflect infrared radiation, but this was not very effective. Paints from Maxit incorporating 3M™ Glass Bubbles offer an optimal, more sustainable, combined solution.”

For more information visit [maxit.de](https://www.maxit.de)

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Applied to Life.™

Advanced Materials Division  
3M Germany, Carl-Schurz-Strasse 1  
41453 Neuss, Germany  
[www.3m.de/glassbubbles](http://www.3m.de/glassbubbles)  
[www.3m.co.uk/glassbubbles](http://www.3m.co.uk/glassbubbles)

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