

sto



Building with conscience.

| Interiors | StoCalce Functio |



StoCalce Functio
State-of-the-art
humidity management

StoCalce Functio

State-of-the-art humidity management

If there's one basic rule for creating a pleasant ambient interior climate, it's maintaining the humidity at a level that is neither too high nor too low. There are, however, rooms and geographic locations in which the climate poses a particular challenge.

By harnessing the unique benefits of lime and clay, we have taken humidity management to a whole new level. Thanks to its porous structure, clay is able to store humidity temporarily before releasing it back into the environment at the appropriate conditions. While lime offers durability, design and application advantages that have stood the test of time.

Introducing to the market – StoCalce Functio, an interior plaster system, that is nothing but natural, offers a variety of unique surface finishes and can regulate the ambient interior climate perfectly.



Feeling close to nature

Lime: A feel-good material

Buildings and living spaces made from natural materials have always created an atmosphere that puts people at ease. As far back as ancient Rome, the valuable properties of lime – dubbed an "imperishable material" – were well known, and the material even provided people with a natural source of protection thanks to its disinfectant effect. Clay is another feel-good material that provides similar climate-regulating properties in its own right – making it a building material that has been equally prized down the centuries.

Climate-regulating thanks to a porous structure

Lime and clay's ability to make a sustainable improvement to interior climates comes down to its porous structure and the associated diffusion capacity: Excess humidity is absorbed by the lime and clay products, temporarily stored and then released, at a rate that is appropriate for the conditions. This produces an ambient interior climate that lets you take a deep breath and feel perfectly at home.

Pure nature

Not only is lime able to regulate humidity, it also boasts another very special property: it's naturally alkaline! This makes it possible to completely dispense with the anti-microbacterial preservatives that would otherwise need to be used under storage conditions. In other words, it's a product that's nothing but natural.

Surfaces with a strong character

In addition to its superb ecological credentials, lime also opens up a wide variety of design possibilities: thanks to the whole range of textures and shades it offers, plus the numerous options for processing it, you can create surfaces that deliver sophisticated aesthetics and that are also entirely unique.



The three stages in the transformation of natural limestone rock:

Burning: During the burning process, the natural carbon dioxide is driven out of the limestone at temperatures of 1200 °C. What is left is the white quicklime.

Slaking: This quicklime reacts with water during the slaking process, also known as hydration. The result is lime hydrate.

Setting: The setting process takes place after product application, as the lime plaster and mortar dry, CO₂ is acquired from the air and limestone rock is produced once again – in the form of plaster or paint on the wall.



Sto and lime –

A partnership that has stood the test of time

As proven by the acquisition of Weizener Cement- und Kalkwerk by Wilhelm Stotmeister in 1936, the Sto company's close association with lime can be traced as far back as its earliest days. Since then, the range of lime products on offer has continually developed, while production processes have improved and application and surface techniques have been optimised. StoCalce continues to uphold this tradition, in the form of products that are a truly winning choice, not only because of their own natural properties, but also thanks to our decades of expertise.



StoCalce Functio

Providing a healthy building environment and the perfect ambient interior climate

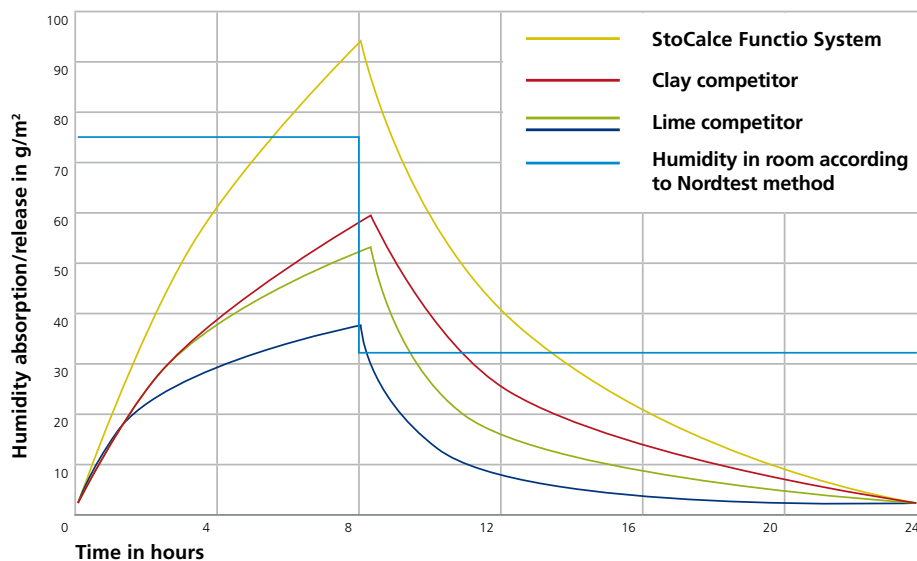
Ecology meets functionality

StoCalce Functio harnesses the benefits of lime and clay. Thanks to its porous structure, clay is able to store humidity temporarily before releasing it back into the environment at the appropriate conditions. While lime products offer durability, design and application advantages.

StoCalce Functio takes advantage of these features in the form of a natural, innovative plaster system for interiors, that is able to absorb much more humidity than conventional lime and clay plasters available on the market. As a result, it can regulate the ambient interior climate perfectly.

Benefits you can measure

We don't just claim that StoCalce Functio is better at regulating humidity in rooms than comparable products – we can prove it too: StoCalce Functio absorbs more than 90 g water/m² in eight hours. What this means is it can absorb twice as much humidity as comparable products.* In fact, when pitted against clay plasters, the StoCalce Functio system's humidity absorption capacity is around 50% higher!



*Measurement results confirmed by the research institute Empa (Switzerland).

StoCalce Functio plasters are a bagged lime based product, they are easy to mix and quick to apply. All projects are completed by a registered Sto Contractor to guarantee the highest quality of standards.



StoCalce Functio – Combining the very best properties of clay and lime.

Following intensive research conducted in collaboration with the Swiss institute Empa, we have been able to integrate a highly functional natural occurring material into lime plaster.

This has resulted in StoCalce Functio; an ecological revolution. This natural interior plaster system combines the tried and tested properties of lime products – such as their ease of application and resistance to water – with the benefits of conventional clay plasters.

	Clay	StoCalce Functio	Lime	
Absorption of humidity	High	Very high	Medium	Absorption of humidity
Crack formation	Prone to crack formation	No crack formation	No crack formation	Crack formation
Water resistance	Not water-proof	Water-proof	Water-proof	Water resistance
Rate of sorption/desorption	Very quick	Very quick	Quick	Rate of sorption/desorption
Abrasion resistance	Not abrasion-resistant	Abrasion-resistant	Abrasion-resistant	Abrasion resistance
Alkalinity	Neutral	Alkaline/neutral after the setting process	Alkaline/neutral after the setting process	Alkalinity
Ecology	Ecological product	Ecological product	Ecological product	Ecology
Ingredients		Preservative-free		Ingredients
Application	Difficult	Easy	Easy	Application
Over-coatability	Difficult – often not possible	Possible	Possible	Over-coatability

StoCalce Functio Plaster System

State-of-the-art humidity management

A system for new and renovation interiors projects

Whether you are working on a new or renovation project, StoCalce Functio offers the perfect combination of properties for a healthy interior atmosphere, from its climate regulating structure, to it being a natural material - free of harmful substances, to opening up a range of design options and unique surface finishes.

Application is carried out by a Sto Registered Licensed Building Practitioner with the added protection of a 5 Year StoWarranty and StoService Assurance, guaranteeing compliant materials are used and application meets the highest quality of standards.

Perfect interaction

1 - Substrate

Plasterboard, masonry or surfaces suitable for render.

2 - StoPutzgrund

Water-based organic primer.

3 - StoLevell Calce FS

StoLevell Calce FS - Humidity regulating base-coat.

■ Plasterboard and prepared surfaces:

StoLevell Calce FS, 3 - 5 mm.

■ New masonry block surfaces:

StoLevell Calce FS with glass fibre reinforcement mesh, 10 - 15 mm.

StoLevell Calce FS may be applied as the finish.

4 - StoCalce Activ


Humidity regulating finishing plasters.

■ StoCalce Activ MP:

Smooth, Float, Travertine or Sponge finish.

StoColor: StoCalce Activ finishing plasters are naturally tinted with StoCalce Colors. For added protection S-Protect SC Stay Clean can be applied.



 **Sto 5 Year Warranty
with StoService Assurance**



StoCalce MP Activ -Burnished finish



StoCalce MP Activ -Smooth trowel finish



StoCalce MP Activ - Travertine finish



StoLevell Calce FS - Sponge finish

StoCalce Color

StoCalce Activ finishing plasters are naturally tinted with a selected range of StoCalce Color tints on site by the Sto Contractor. The colour chart opposite denotes the name of these colours, however the intensity can be altered by adjusting the amount of tint used.

A StoCalce Color Collection utilising **PeterFell** coloured oxide, in a wider range of whites and neutrals, is also available on request.

StoCalce Colors can change from project to project, because of the organic nature of hand application, environmental conditions and lighting influences. Given on site variances it is recommended that a dry sample is approved before proceeding.



For unlimited scope of design: More interior plasters from Sto

StoCalce Marmorino

A polished coloured lime only based finish, that is rooted in traditional materials and craftsmanship, lending rooms a Mediterranean flair. Available in the full StoColor System.



StoCalce Marmorino

Stolit Finishing Renders

All Stolit finishing renders are suitable for application over interior linings and available in the full StoColor System, whether creating an exterior to interior flow, or the natural surface look of concrete or precast panel.



Stolit Milano



Stolit K



Building with conscience.

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