HIGH-TECH

THERMOCERAMIC COATING

MicroSATE Go_Comfort ®

MicroSATE Go_Comfort®

What is
the MicroSATE Go_Comfort® system?

HIGH-TECH THERMOCERAMIC COATING FOR FACADES, ROOFS AND INTERIORS

MicroSATE Go_Comfort®

SPACE TECHNOLOGY AND EFFICIENCY AND INNOVATION

Technology used by NASA to protect the outer surface of space shuttles against the very high temperatures (more than 2000 °C) that they must withstand during their entry into the Earth's atmosphere. This technology serves as a starting point for the creation of Go_Comfort products developed for application in the field of construction and the industrial sector, with the guarantee of efficiency and innovation in thermal protection.

THERMOCERAMIC MICROSPHERES

It is a membrane composed of millions of vacuum thermoceramic microspheres of different diameters in a microscopic range (20 to 120 micrometers), linked together by a special water-based binder. After being applied, once dry, the membrane polymerizes to become a structure of approx 0.3 mm thick, elastic and dense but permeable to water vapor.

ALL TYPES OF SURFACES

MicroSATE can Go_Comfort be used in facades, roofs and interiors of both buildings and private homes, being also very suitable its industrial application. Each product in the range is specifically developed to adapt its characteristics to the individual use of each material in which it is applied (metal, concrete, wood ...).

TECHNOLOGY

OPTIMAL COMPOSITION

Hollow ceramic spheres cohesive by a polymer binder and titanium dioxide.

Thermal properties of ceramic material without the use of solvents or toxic compounds.

Resistance to high temperatures and erosive agents without resorting to allergenic materials.

REFLECTIVITY/ EMITIVITY

The transmission of heat by solar radiation inside the building during the summer months is minimize.

Protects from the thermal effect of solar radiation. The result is energy savings in the hot months.

VARIABLE PERMEABILITY

It is impervious to water but allows the passage of water vapor

It protects from the entry of outside water but allows the exit of interior water vapor. The result is:

+ Energy saving in winter
+ Substantial improvement in building health
+ Protection against humidity

HYGROSCOPIC

Extracts water vapor from its environment: by adsorption of the environment, and by absorption of mineral material

Leads to relative humidity in indoor rooms in a range of optimal values
- Dry the surface.
- It produces a hydrated layer with a cooling thermal behavior in summer.

The result is:

Energy saving in summer and winter / Optimal behavior in humid environmentsEnergy saving in summer and winter / Optimal behavior in humid environments

HIGH STRUCTURAL STABILITY (ELASTICITY)

Elastic even in minute thicknesses and high colour stability

Accompany surfaces on their dimensional variations presenting a more durable exterior appearance quality.
The result is:

+ Building protection
+ Better visual aesthetics

MicroSATE Go_Comfort®

MAXIMUM BENEFITS

ENERGY SAVING SYSTEM

MicroSATE Go_Comfort® system technology allows properties depending on the season of the year in which we are.
It expels the unpleasant heat from the interior of the building in summer at the same time that it prepares the building for winter by drying the walls achieving savings in the cost of heating and air conditioning.

ECO-FRIENDLY

It is a respectful product With the environment, it does not produce any ambient air pollution since it does not generate emissions helping to reduce global warming. It is water-based and does not contain organic solvents or aromatic compounds. It is recommended for allergic or asthmatic people since it does not release any chemical recognized as allergenic.

THERMAL COMFORT

The innovative qualities of microSATE Go Comfort provide pleasant thermal comfort in any type of building, help save heating and cooling costs and protect facades and roofs from harmful environmental influences and deterioration by weather influences.

MicroSATE Go_Comfort®

CHARACTERISTICS

ENERGY AND COST SAVINGS

MicroSATE Go Comfort, thanks to its properties, is able to reflect solar radiation. Combining its reflectance and emissivity with the diffusion of steam from the membrane (endothermic effect), it achieves savings in the cooling effort in hot areas of up to 20%, and can reach 50% in case of constructions without insulation. In winter conditions, in buildings protected by MicroSATE Go_Comfort thermal losses are reduced and heating effort is reduced by 20 to 30%. Therefore, the reduced payback periods of the investment make the application of the product profitable in any type of construction.

MAXIMUM PROTECTION AND LONG LIFE

One of the most important properties of Go_Comfort is the high elasticity of the product at temperatures ranging from -50 °C to 120 ° C. This allows the cladding to absorb cracks of up to 1mm. produced by the expansion and contraction of the building materials of the building envelope. On the other hand, it is waterproof and has a high resistance to UV rays.

MAXIMUM RESISTANCE

It is resistant to kerosene, saltpeter and environmental pollution, as well as repels dirt, and prevents the appearance of condensation and fungi on surfaces. Given its durability and strength, it maintains color stability for a period of time twice that of a high-quality paint. This factor, together with its elasticity, implies a very important economic saving in maintenance and renovation of the exterior finish of buildings for aesthetic reasons.

MULTIPLE APPLICATIONS IN CONSTRUCTION

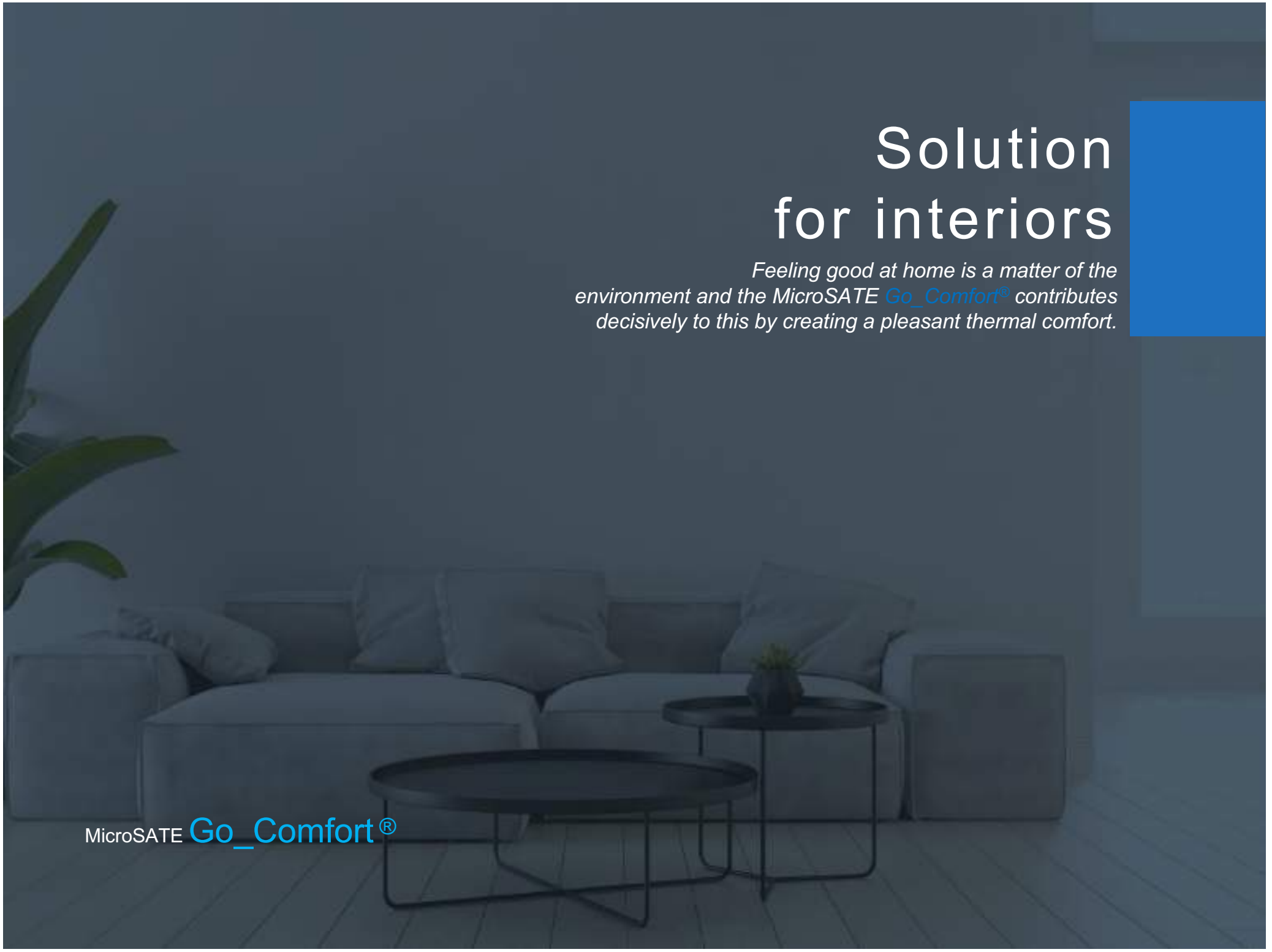
There are multiple applications in both construction and the industrial sector due to its extensive properties.

MORE THAN 2.500 COLORS

In addition, an infinite number of different color nuances can be made according to NCS-RAL-EUROTREND color charts. In satin matte finish and with high luminosity.

All product certifications have been obtained through efficacy tests

MicroSATE Go_Comfort®



Solution for interiors

Feeling good at home is a matter of the environment and the MicroSATE Go_Comfort® contributes decisively to this by creating a pleasant thermal comfort.

MicroSATE Go_Comfort ®

INDOOR HUMIDITY CONTROL

Thanks to its vapour diffusion capacity, it regulates the relative humidity of the interior spaces around 55%, which is the optimum humidity value for comfort.

THERMAL EQUILIBRIUM IN SPACES

In the MicroSATE Go_Comfort Interior the thermoceramic membrane is responsible for achieving a homogeneous distribution of heat in the room through an endothermic effect. The temperature difference between the floor and the ceiling area can thus be less than 2 °C, instead of about 10 °C, which is usual in rooms with radiator heating systems or air conditioning. In this way, we avoid the "cold feet-hot head" effect, so harmful to people's well-being.

RECOMMENDED FOR ALLERGY SUFFERERS AND ASTHMATICS

It is a water-based product, without solvents or aggressive chemicals. It does not release any chemical recognized as allergenic.

THERMAL COMFORT IN ANY SEASON OF THE YEAR

In summer, it collects moisture from the support by ejecting it towards the surface of the wall, similar to how in summer the skin cools thanks to sweat, generating a cool and pleasant atmosphere even without air conditioning.

In winter, ceramic microspheres radiate heat evenly from the walls and ceiling, generating a sense of comfort. In addition, the walls are drier as moisture has been extracted from their interior, achieving better thermal insulation.

PREVENTS MOLD FORMATION

With thermal balance, condensation on the walls and the formation of molds are avoided, even in rooms with poor ventilation such as garages.

MicroSATE Go_Comfort®

RESULTS AFTER APPLICATION IN INTERIOR

MicroSATE Go_Comfort®

Solution outdoor

Durable protection for the building facade

MicroSATE Go_Comfort®

HIGH RESISTANCE TO ENVIRONMENTAL IMPACT:

Water: Variable Permeability

On the one hand, the polymer resin when in contact with water (rain, hail, snow, etc.) increases its volume by around 25%, becoming waterproof and protecting the façade. On the other hand, when environmental conditions are dry, the membrane, which is hygroscopic, extracts moisture from the envelope and expels it to the outside in the form of water vapor.

Sun: High reflectance and emissivity

The MicroSATE Go Comfort® membrane is capable of reflecting and emitting the solar radiation it receives, so that only a small percentage of the heat received is transmitted inside, reducing the energy consumption necessary for the cooling of spaces.

External agents: High resistance

With the MicroSATE Go Comfort®, thanks to its resistance and elasticity, it prevents cracks in the facades and protects them from deterioration caused by air pollution, saltpeter (in areas near the sea) and UV radiation.

DURABLE PROTECTION:

It keeps the inside of the walls in low humidity conditions, preventing condensation and molds from appearing. As there are no cracks in the cladding, there is no entry of water, so that the façade is protected.

MAINTAINS THE INTENSITY OF THE COLORS:

The durability of Go Comfort's color intensity is far superior to that of paints, extending renewal periods by 100% for aesthetic reasons, which means savings in maintenance costs. When, after 10 years from the application of a paint on a façade, it is deteriorated and with signs of discoloration, Go Comfort is in a state very similar to that of its initial application.

APPLICABLE IN DIFFERENT MATERIALS:

It can be applied on different surfaces. In addition, there is a specific product for the exterior and interior that, both for its resistance to UV rays, and for its elasticity against expansion and contraction, slows down the aging process and deterioration of the supports

Isolated individual housing

Surbanization of single-family homes

Residential building

CASE STUDIES

REAL RESULTS

Solution for roofs

Protective shield for roofs

MicroSATE Go_Comfort®

The roof is where the most solar radiation receives the constructions. MicroSATE Go_Comfort®'s reflective and flexible membrane technology protects roofs against high temperatures caused by the sun.

With MicroSATE Go Comfort® the data supports us:

+ TSR (Total Solar Reflectance): 91,4%
+ SRI (Solar Reflectance Index)*: 111.4
+ THE (Thermal Emissivity): 88%

ENERGY EFFICIENCY

As in the rest of the cases, the MicroSATE Go_Comfort®, guarantees an important energy efficiency both in winter and summer, saving energy and its corresponding economic cost.

MAXIMUM PROTECTION

Long-lasting protection of the roof against harmful environmental agents such as ultraviolet radiation, air pollution, dirt, acid and saltpeter, as well as adverse weather conditions.

ALL TYPES OF SURFACES

It can be applied on all types of surfaces thanks to its excellent adhesion, including metal sheets.

WATERPROOF

MicroSATE is Go_Comfort® is rainproof even in the most extreme weather conditions. It also has a dampening effect on noise caused by rain or hail.

ELASTIC

Given its elasticity, the appearance of fissures is reduced. Remains elastic in temperature ranges between -40°C to +150 °C. Extremely flexible in joints.

*The SRI is calculated according to American standards. (ASTM). Values greater than 110 are considered maximum values.

RESULTS AFTER APPLICATION ON A ROOF

MicroSATE Go_Comfort®

Outdoor measurement

Indoor measurement

Applications for industrial use

MicroSATE Go_Comfort®

STORAGE TANKS

By avoiding constant fluctuations in temperature, the usual overpressure of tank capacity and material losses generated by it are avoided.

RAILWAY INDUSTRY

Train cars are subjected to high temperatures, especially in summer. With Go_Comfort®, indoor temperatures are lowered, contributing to greater interior comfort and reliable mechanical operation.

SHIPPING CONTAINERS MARITIME

During long journeys through the ocean and subjected to high temperatures, it allows the goods to travel without deteriorating.

TENTS, AWNINGS AND TEMPORARY INSTALLATIONS

In order to withstand temperature fluctuations in all geographical regions, the textile material can be coated with Go_Comfort®.
In order to maintain pleasant temperatures inside tents and tents both in summer and winter.

ACOUSTICS

Resonance in a room comes from various reflection surfaces, such as the floor, ceiling, and walls. This causes sound reflection and reverberation. In order to understand the spoken words clearly, acoustic sounds must be muted as soon as possible. Coating special acoustic elements for walls and ceilings with Go_ Comfort® can help improve interior acoustics.

MicroSATE Go_Comfort®

Sea freight containers

Tents, awnings and temporary installations

Railway industry

Prevention of reverberation: soundproofing

MicroSATE Go_Comfort ®

Certifications

MicroSATE Go_Comfort®

LABORATORY CERTIFICATIONS

Go Comfort products are continuously being subjected to very strict testing according to the standards DIN-ISO-ASTM-JIS and others carried out exclusively by independent laboratories and International Technical Universities such as:

UL Underwriters, EEUU / Institut Fraunhofer, Alemania / Calcoast Laboratories , EEUU / JIS ,Japón / Institut Max Born, Alemania / Oakridge National, EEUU

These are some of the tests conducted by:

DIN 4102
Fireproof behavior-ASTME-108

DIN 52615
EN ISO 12572 permeability to water vapour

EN ISO 2812
Kerosene resistance and dirt adhesion

EN ISO 554
Antielectrostatic properties

EN 16012:2022+A1:2015 (E)
Thermal insulation for buildings - Reflective insulation products - Determination of the declared thermal performance

ECOLOGICAL CERTIFICATION “GREENGUARD GOLD”

UL UNDERWRITER GREENGUARD GOLD

Greenguard Gold certificate of ecological excellence awarded for the entire range of all products required for the Go_Comfort system.

GREENGUARD Environmental Institute is an independent, third-party, not-for-profit organization offering three product certification programs and one construction program. GREENGUARD certification has been widely adopted as a trusted standard for low-emission products. In fact, more than 400 green building codes, standards, guidelines and rating systems, and among them the LEED and BREEAM sustainable building programs, rely on GREENGUARD certified products.

The GREENGUARD GOLD certification obtained by the products Go_Comfort guarantees the highest safety criteria against chemical emissions, contributing to the creation of healthier indoor environments, and recommended for environments such as schools and centers
Health.

A free online guide to registered and certified buildings and certified products is available on www.greenguard.org

by GREENGUARD.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