



X-FLOOR®



TERRA FLOOR®



TERRA FLOOR® glass

GROUND DECORATIVE SYSTEMS

THE POWER OF NANO

NANOTECHNOLOGY

Using specialised products from the BAUTECH® Nanotechnology group changes the molecular structure of the floor surface, additionally strengthening and sealing it, without creating any top coat, but only by modifying its internal structure. This is due to lithium silicate compounds contained in products that react with free calcium hydroxide to form hydrated silicates and aluminosilicates, which provide the most durable combination of all the ingredients of concrete.



WHAT IS NANOTECHNOLOGY?

A set of techniques and methods for formation of various structures of nanometric sizes (from 0.1 to 100 nanometres), i.e. at the level of individual atoms or molecules.



Regular concrete



Concrete modified using silicates

EXAMPLES OF APPLICATION

Plastics, whose structure is controlled at the level of individual molecules – materials with unusual mechanical properties can be obtained in this way. Thanks to the penetration and curing of concrete in the molecular structure, BAUTECH® nanotechnology allows to obtain a high-strength cement matrix with extreme physical and chemical properties.

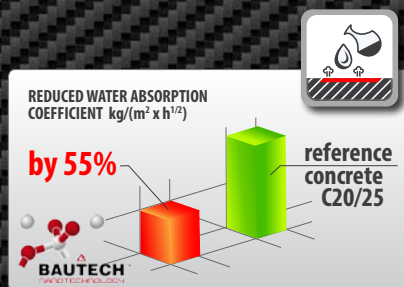


BENEFITS OF APPLICATION OF BAUTECH® NANOTECHNOLOGY LITHIUM SILICATES:

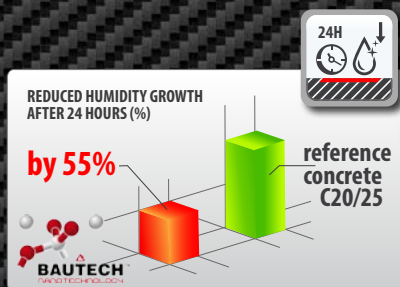
- Blocking of micro-pores in concrete
- Strengthening and sealing of floors
- Increased resistance to abrasion and wear
- Protection against dusting
- Proper care
- Excellent penetration
- Durability
- Elimination of dust and efflorescence
- Improvement of condition of old concrete floors
- Minor downtime
- Ease of maintenance



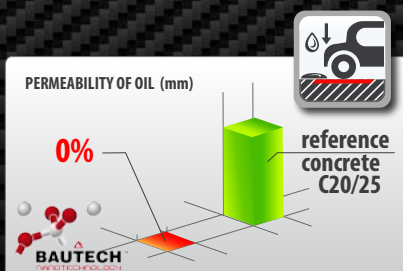
REDUCED WATER ABSORPTION COEFFICIENT $\text{kg}/(\text{m}^2 \times \text{h}^{1/2})$



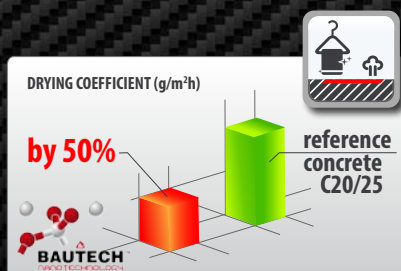
REDUCED HUMIDITY GROWTH AFTER 24 HOURS (%)



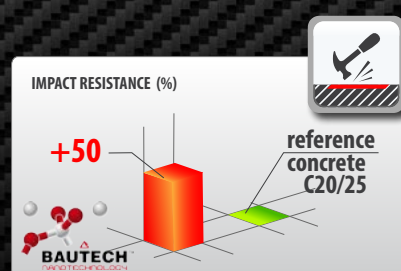
PERMEABILITY OF OIL (mm)

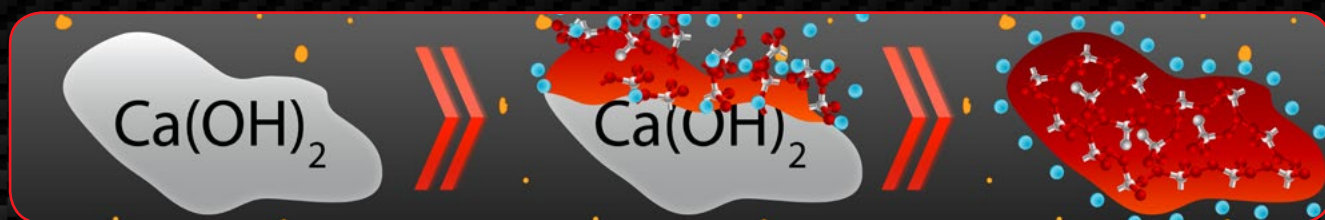


DRYING COEFFICIENT ($\text{g}/\text{m}^2\text{h}$)



IMPACT RESISTANCE (%)





WHAT DO WE GAIN?



No defects

- With advanced chemical formula we harden floors and eliminate penetration of oils and fluids into the concrete, and thus we limit the erosion of the concrete surface



Ease of cleaning

- By limiting penetration we eliminate the formation of stains which are difficult or even impossible to remove
- Rubber coming off from forklifts or shoes does not remain on smooth surfaces
- We reduce the high upkeep costs caused by poor protection of floors, where dirt penetrates into the pores of concrete and requires aggressive cleaning, which is not without significance for the life of floors



Energy savings

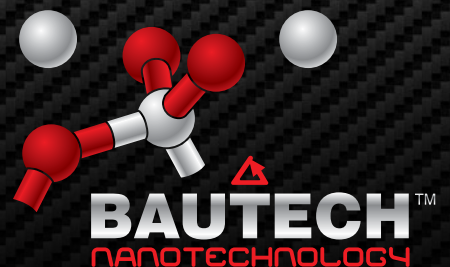
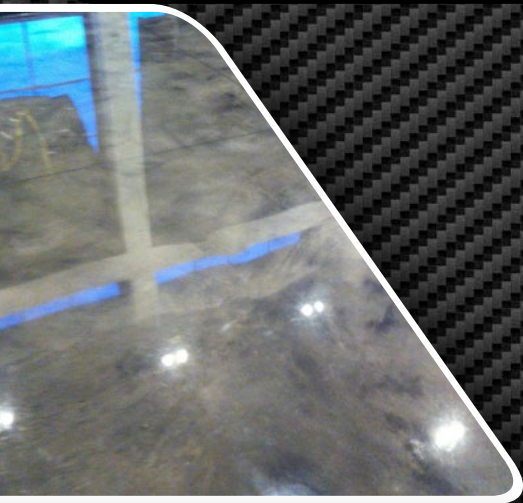
- We reduce the energy use caused by a longer duration of use of electric washers
- We "brighten" the room, reducing the amount of artificial lighting that's required





X-FLOOR®

Densified polished concrete



MIRROR-LIKE



X-FLOOR® SYSTEM is a unique technology of grinding, polishing and chemical strengthening of concrete floors. The use of nanotechnology in conjunction with diamond grinding discs helps in achieving the “mirror” appearance of an ordinary concrete floor, along with an increase in the strength parameters of the surface. In addition to the aesthetic aspect, the concrete floor is also hardened and sealed. These advantages are the result of a chemical reaction between calcium hydroxide and silica in the concrete after the application of lithium silicate, which due to its very small molecular structures react more evenly. Sodium or potassium silicates react leaving more unfilled pores, which ultimately leads to the formation of free calcium carbonate and thereby the formation of dust. Lithium



silicate forms very stable structures insoluble in water providing a greater density and resistance to abrasion and dusting. An underestimated advantage is a better reflection of light off the X-FLOOR® floor which results in the brightening of a room and thus electricity savings. Muffled forklift operation and reduced dusting contribute to the improvement of working conditions. Smooth and level surface almost entirely eliminates vibrations that have a negative impact on workers' health and life of the machines.



DEPTH



VERSATILITY

The use of X-FLOOR® technology is virtually unlimited, from industrial plants and warehouses, through shopping centres, stores, schools and offices, and ending at floors at home.



ECONOMY

Low cost of implementation and maintenance of X-FLOOR® floors in conjunction with high resistance, long life and excellent appearance maintained over many years are undisputed arguments that appeal to future investors and users.

ECOLOGY

The process of making X-FLOOR® floors is completely free of substances hazardous to the environment. The floor is impregnated using formulations based on silicates commonly found in the environment. No chemical coating forms on the surface that could later pollute the environment. Ease of cleaning and care has a positive influence on the ecological profile of the X-FLOOR® system.



ADVANTAGES AND BENEFITS

- Smooth, hard and resistant to mechanical wear floor
- Very high resistance to abrasion
- Elimination of vibrations transmitted to moving machinery and vehicles
- Ecological
- Low upkeep and maintenance costs
- "Mirror-like" shine and brightening of rooms



GRINDING FINESSE

Making of X-FLOOR® floors involves a mechanical treatment of surface with special diamond tools. The first step is to remove the soft top layer of the concrete, thereby exposing the lower layer which is significantly stronger. In the next steps, the floor is ground using tools with precisely matched gradation. During grinding, lithium silicates are introduced, which are responsible for the resistance of the floor during subsequent use. The final step involves applying a special protective coating and polishing it.



1 TERRAFILL®



Repair filler

Two-component filler for repairs of concrete surfaces, cement screeds and polished floors.

DOSAGE 1 kg/2-2,5 m²



2 TERRASEAL®



Lithium silicate curing compound

A highly efficient chemical compound for curing and sealing ground concrete. A product based on lithium silicate that deeply penetrates the layer of concrete creating a hard, durable, airtight and compact structure by reacting

with free calcium hydroxide.

DOSAGE 1l / 12-15 m²

OPTIONALLY

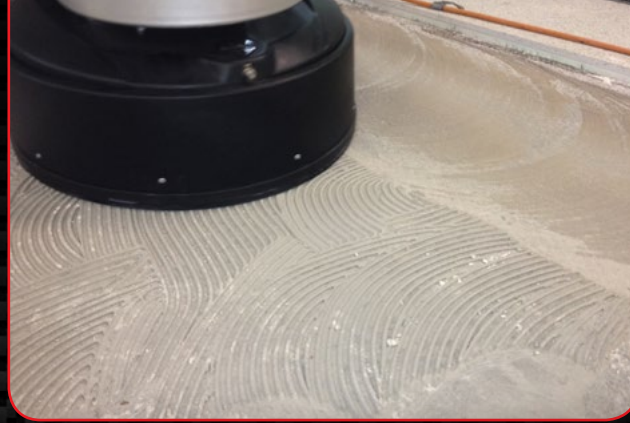
TERRASEAL® MEGA HARD

Strengthened lithium silicate curing compound

Use of an enhanced version with a maximum content of active particles allows to obtain a high-strength cement matrix with extreme physical and chemical properties.



X-FLOOR®



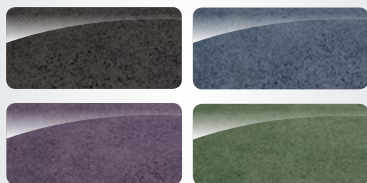
3 TERRA TINT®



Water-based dye

Water-based dye for ground concrete floors. It changes a grey and ordinary surface into a decorative, colourful and durable concrete surface.

DOSAGE 1 l/10-20 m²



4 TERRA COAT®



Lithium silicate polishing agent

The latest generation of a highly advanced formulation based on lithium silicate and modified co-polymers for ground concrete. Thanks to the ultra-modern mix of organic and inorganic compounds, the product provides a long and trouble-free utilisation of the floor, high resistance to staining, excellent slip resistance and perfect finish.

DOSAGE 1 l / 20-60 m²

OPTIONALLY

TERRA COAT® SR

Protective agent that prevents staining.

The latest generation of a strengthened protective agent. The use of ultra-modern formula protects the surface against the formation of e.g. oil, wine or coffee stains. It is especially suitable for restaurants, pubs, dining and kitchen facilities.



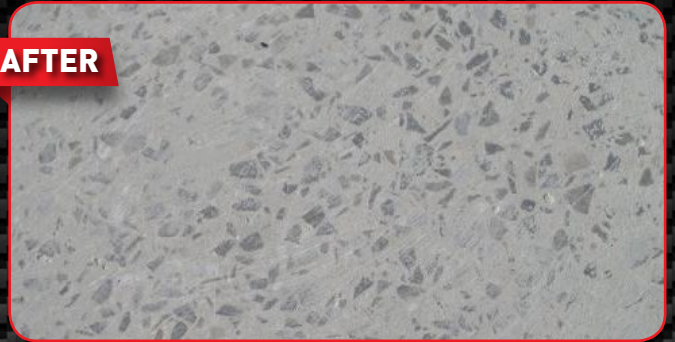
MATERIAL PERFECTION

EFFECTIVENESS OF RESTORATION

BEFORE



AFTER



BEFORE



AFTER



BEFORE



AFTER



BEFORE



AFTER



TERRA FLOOR®

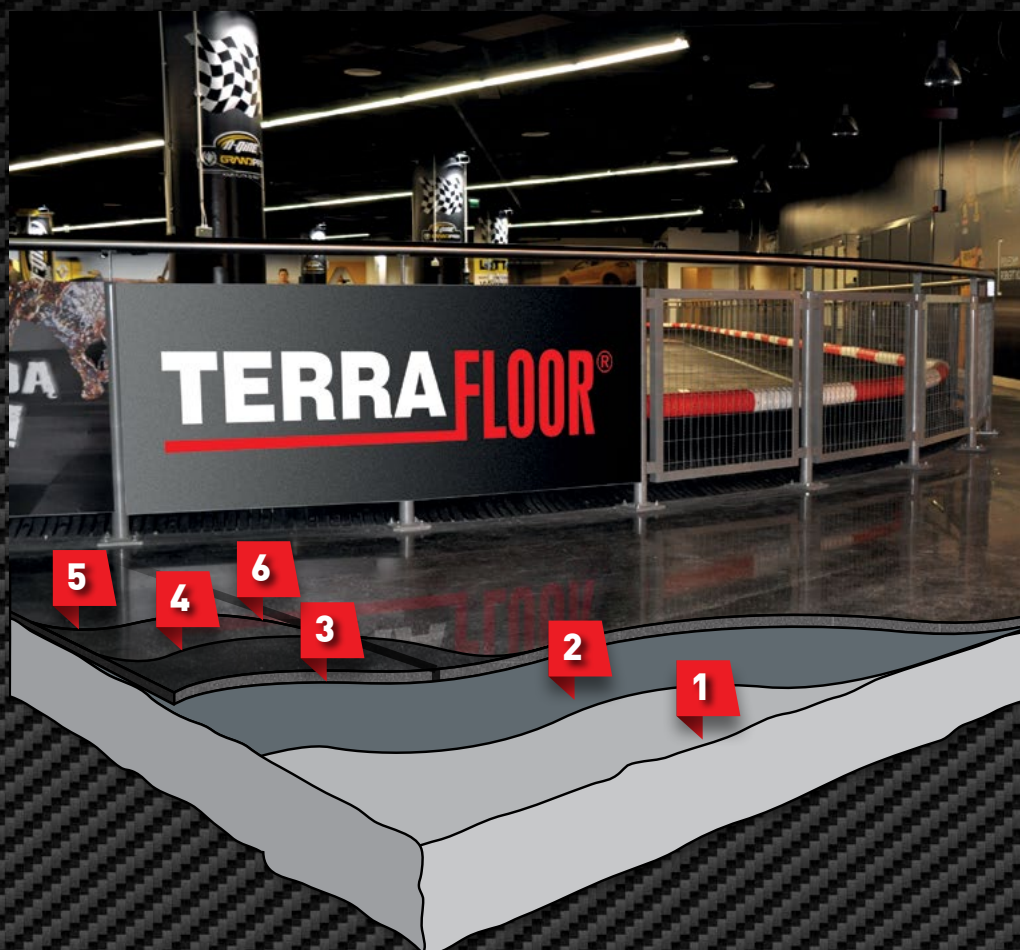
Decorative ground screeds



POWER OF EXPRE

PROPERTIES

A revolutionary system of decorative polished cement screeds that imitate granite and marble floors but surpass them in terms of visual and colour aspects. The use of nanotechnology provides a mirror-like gloss of the surface and high resistance to abrasion, chemical attacks, UV light, staining as well as ease of cleaning. Very rich colours allow you to tailor colours to your individual needs and the specific nature of the object. For use on old and new concrete floors.



1 BAUGRUNT®



Water-borne primer.

DOSAGE
0,3 l/m²

2 BAUBOND®



Polymer cement bonding layer.

For creating a bonding layer that connects the new, thin layer concrete floor to the existing concrete substrate.

DOSAGE
1,5-2,5 kg/m²

3 TERRATOP®



Polymer-cement decorative screed

Thickness 10-30 mm.

DOSAGE
2 kg / m² / mm grubości

4 TERRAFILL®



Repair filler

Two-component filler for repairs of concrete surfaces, cement screeds and polished floors.

DOSAGE
1 kg/2-2,5 m²

SESSION

BENEFITS

- Appearance similar to granite, marble, etc.
- "Mirror-like" smoothness and gloss
- Easy to clean
- Long life
- Ease of implementation
- High chemical and mechanical resistance
- Very rich colours



RECOMMENDED USE

- Shopping centres
- Stores
- Manufacturing plants
- Schools, airports, railway stations
- Car showrooms
- Apartments
- Churches

5 **TERRA SEAL®**



Lithium silicate curing compound

Highly efficient chemical compound for curing and sealing ground concrete. A product based on lithium silicate that deeply penetrates the layer of concrete creating a hard, durable, airtight and compact structure by reacting with free calcium hydroxide.

DOSAGE
1l / 12-15 m²

6 **TERRA COAT®**



Lithium silicate polishing agent

The latest generation of a highly advanced formulation based on lithium silicate and modified copolymers for ground concrete.

DOSAGE
1l / 20-60 m²

7 **TERRA FLEX®**



Joint sealant

Two-component colourful sealant for ground floors.

DOSAGE
According to the data sheet of the product.

BENEFIT
FROM OUR
EXPERIENCE



1 Preparation of concrete substrate



5 Cutting and filling joints using TERRAFLEX®



2 Priming the substrate using BAUGRUNT® primer and application of BAUBOND® bonding layer



6 Grinding of the surface and application of TERRASEAL®



3 Laying down of the TERRATOP® 10-30 mm layer



7 Application of TERRACOAT®



4 Power floating of the concrete surface in order to achieve a level and smooth surface



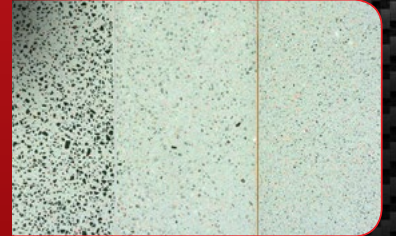
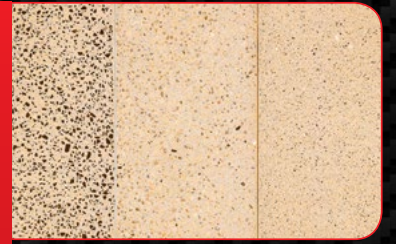
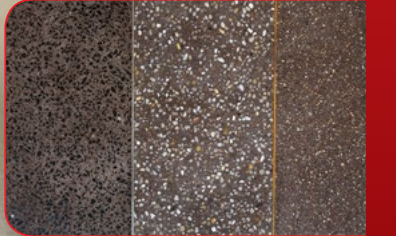
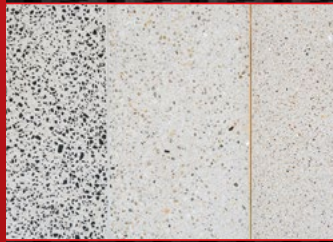
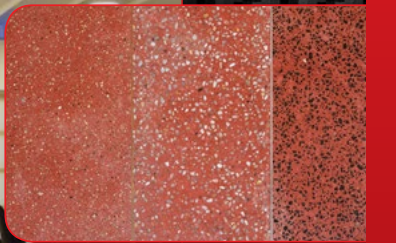
8 Polishing to make the surface shinier and seal the floor



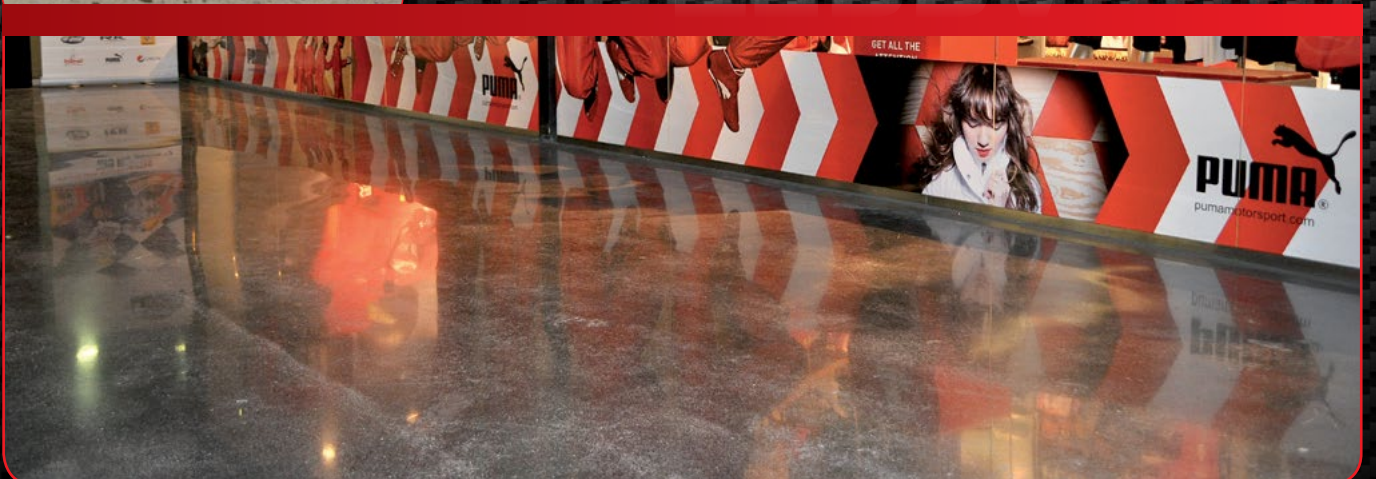
IMMENSITY OF FORM



The power of the system lies in the vast number of combinations of aggregates of basalt, quartz, micro-quartz and base colours which give endless possibilities of creating new designs as well as avant-garde and original arrangements.



TERRAFLOOR®



COLOUR PALETTE OF DECORATIVE CEMENT SCREEDS

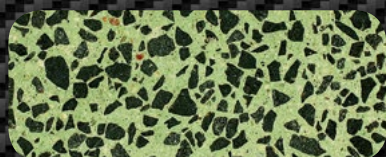
BASALT AGGREGATE



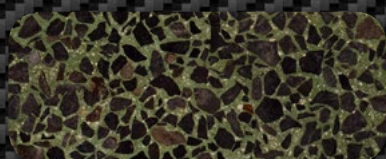
BLUE OCEAN
TR310



MARTIAN DUST
TR300



WELCOME SPRING
TR302



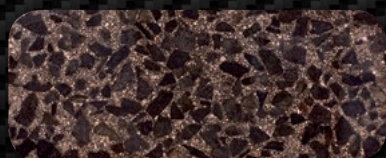
AMAZON GREEN
TR312



BURNT RED
TR305



RED PLANET
TR301



FROZEN LAVA
TR311

QUARTZ AGGREGATE



ASHY MOSAIC
TR600



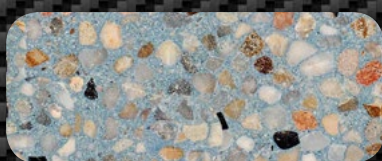
DESERT BEIGE
TR603



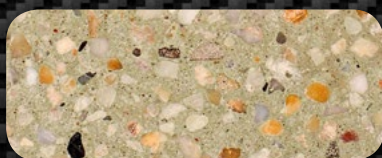
STONE OF EGYPT
TR604



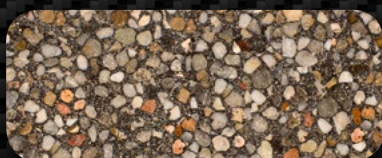
STARRY SKY
TR606



CLOUDLESS SKY
TR609

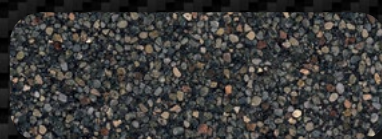


RIPE OLIVES
TR602



ROMAN MOSAIC
TR601

MICROTERRAFLOOR



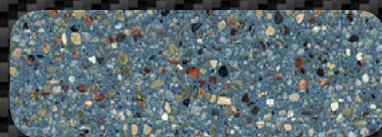
MAGMA VALLEY
TRM 701



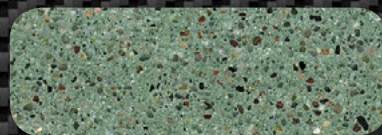
CHOCOLATE DREAM
TRM 702



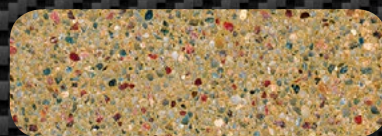
TUSCAN RED
TRM 703



PARADISE LAGOON
TRM 704



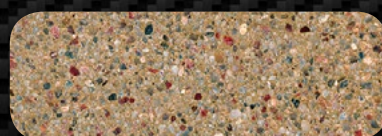
GREEN AVOCADO
TRM 708



HONEYCOMB
TRM 705



WHITE ALABASTER
TRM 706

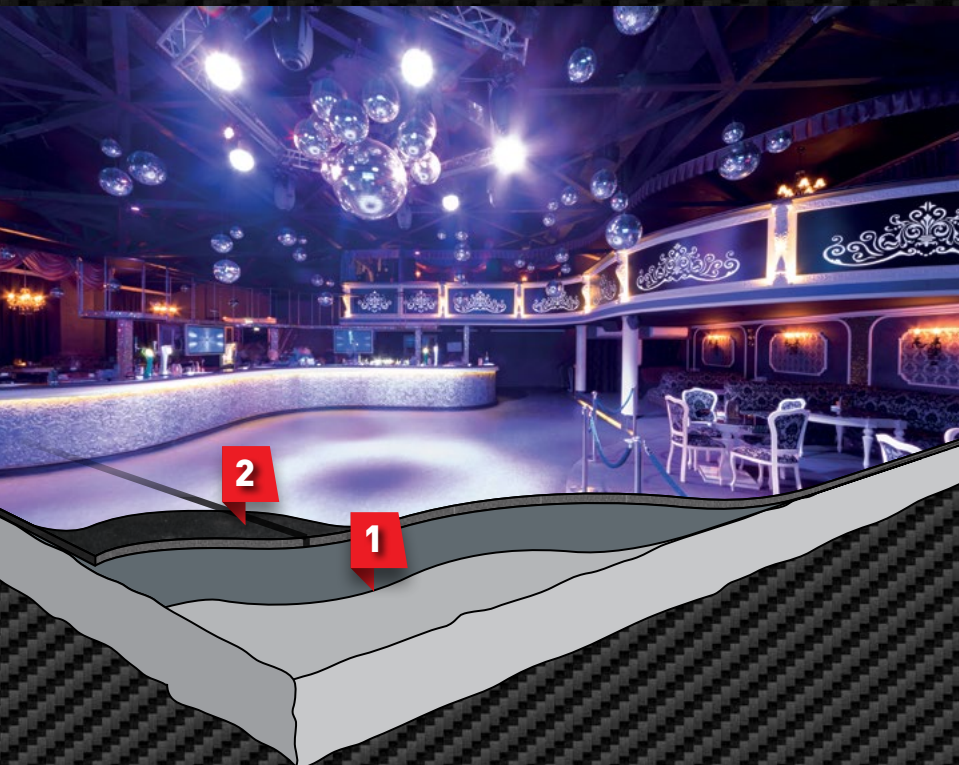


SAHARA SAND
TRM 707

TERRA FLOOR® Glass



GLASS STRUCTURES



TERRAFLOOR GLASS® is a system of thin-layer, ground, epoxy decorative floors. It is intended for use as a luxurious finish of floors in prestigious private buildings as well as exhibition and public facilities and everywhere else where quality, originality and the highest level of aesthetics matter.



ENDLESS POSSIBILITIES

1 **BAUPOX®**



BAUPOX 100 ST + QUARTZ AGGREGATE

Universal colourless epoxy resins for technical applications

DOSAGE

0,30 – 0,50 kg/m²
+ 1.00 kg/m² of quartz aggregate

2 **BAUPOX®**



+



BAUPOX 400 HP + pigment + 1.00 kg/m² of quartz aggregate

Mix of a specialised, two-component epoxy resin for ground floors with a GLASS component and pigment

DOSAGE for floors with a thickness of 15 mm:

BAUPOX 600 – 3.30-3.60 kg/m² ; GLASS component 33 kg/m²

Standard colours of
RAL pigments



1001



1006



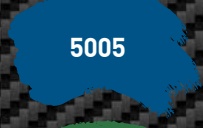
1011



1015



3001



5005



6010



6021



7024



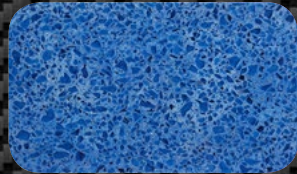
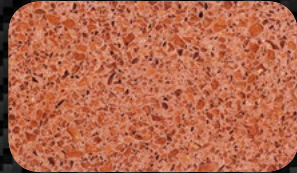
7035



9003



9011

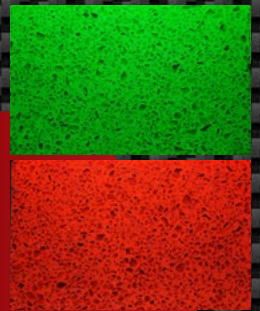


RECOMMENDED USE

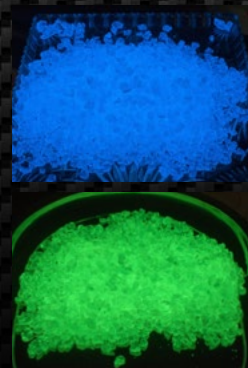
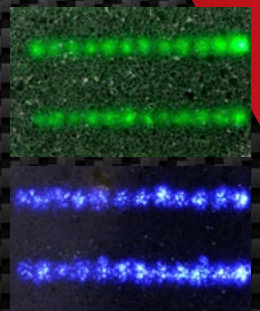
- For making level, smooth, impressive thin-layer, trowelled and ground epoxy floors on new and renovated concrete substrates
- For making floors with submerged LED lighting
- For making luminescent and fluorescent floors
- Ideal for clubs, restaurants, shopping centres, houses, etc.



FLUO RESCENCE



LED LIGHTING



LUMI NESCENCE

BENEFITS

- "Mirror-like" smoothness and shine
- Unique aesthetic effect
- Easy to clean
- Easy to clean
- High chemical and mechanical resistance
- Wide range of colours
- Ability to use additional visual effects



▶ **INDUSTRIAL FLOORS:**

- concrete BAUTECH®
- thin-layer BAUFLOOR®
- epoxy BAUPOX®
- polyurethane BAUPUR®
- hydro-isolating and bridging systems
- bonding layers

▶ **X-FLOOR®**

GROUND FLOORS

- BAUTECH lithium products
- NANOTECHNOLOGY:
 - polishing,
 - sealing,
 - strengthening,
 - dyeing,
- repair fillers

▶ **REINFORCEMENT FIBRES**

- polymer
- steel
- polypropylene

▶ **SEALING AGENTS AND PAINTS**

- acrylic
- silicate
- epoxy

▶ **TERRAFLOOR® DECORATIVE GROUND SCREEDS**

- cement-polymer
- epoxy

▶ **PRESSBETON® DECORATIVE PAVEMENTS**

▶ **RESTORATION, MAINTENANCE AND CURE PRODUCTS**

▶ **BAUFLEX® DILATION SYSTEMS**

▶ **BLACKLINE® PROFESSIONAL FLOORING EQUIPMENT**

- vibrating screeds
- power trowels

PRODUCTION • CONSULTING • TRAINING • DISTRIBUTION


BAUTECH®
Industrial & Decorative Floors

BAUTECH Sp. z o.o. ul. Staszica 25, 05-500 Piaseczno, POLAND
tel.: (+48 22) 716-77-91, fax: (+48 22) 716-77-90, e-mail: bau@bautech.pl

www.bautech.eu