

# CONCRIA OPTIMAL SLAB™ INDUSTRIAL NEW GENERATION DRY-SHAKE HARDENER FLOOR

Better bonding. More uniform color. Minimized shrinkage. No Delamination.

www.concria.com

## SUPERIOR NEW GENERATION DRY-SHAKE HARDENER FLOOR

#### **Easier to maintain**

Since the 1980s, dry-shake hardener has been standard industrial concrete flooring surface due to its low installation and maintenance costs and primarily because of high durability. The dry-shake hardener floors can fail, resulting in extensive repair costs. Typical problems are surface delamination, plastic shrinkage, and ununiform color. We wanted to take up the challenge and develop a method that enables contractors to make better dry-shake hardener surfaces even under challenging conditions like high heat, wind, sun, or low humidity.

Concria Optimal Slab<sup>™</sup> Industrial topping is 'a new generation' dry-shake hardener solution developed and patented in Finland.

# **ECOLOGICAL CHOICE**

Sustainability and being ecological are essential topics in the modern world. According to the University of Linköping in Sweden, concrete floor greenhouse gas emission GWP- factor is 90, significantly lower than Epoxy (GWP 17 000). Concria Optimal Slab<sup>™</sup> is a concrete floor that improves indoor air quality by being a dust-free with no toxic chemicals nor high chromate substances.

### **Benefits**:

- Fast implementation and deployment
- ✓ Dense, smooth, and seamless surface
- Maintains good indoor air quality
- ✓ Very low maintenance and service costs

## **100% DUST-FREE SURFACE**

Nanosilica is sprayed into the Concria Optimal Slab<sup>™</sup> surface during the installation. Nanosilica is significantly improving the cement hydration and making the surface completely dust-free. The entire floor is finished at once and does not require lithium or sodium treatment later.



TROWEL MARD

STER. BRIGHTER.

CRETE SU

#### **References:**

80 000 m2 Lidl, Netherlands 22 000 m2 DHL Bangalore, India 20 000 m2 Amazon, India 20 000 m2 Prologistic, England 4 000 m2 Amazon, England

## WHAT IS CONCRIA OPTIMAL SLAB™ INDUSTRIAL?

It is a method that includes all the products needed to make a better dry-shake hardener floor. The secret of a durable, long-lasting, and the almost maintenance-free floor is a combination of industrial dry-shake, nanotechnology, and the unique products Concria has developed for surface finishing.

Concria Optimal Slab<sup>™</sup> Industrial dry-shakes is made from uniquely hard and coarse aggregates, modified Portland cement, polypropylene microfibers, and additives. The cement reacts with Concria<sup>™</sup> Trowel Hard nanosilica, which is applied during the installation, improves the bonding, and makes the surface denser and harder.

Thanks to the polypropylene fibers and Concria's installation method, plastic shrinkage and delamination are minimized, and the finished surface is smoother and glossier than usual. The smooth and denser surface reduces forklift tire wear and is easier to maintai

### **Concria Optimal Slab ™ Industrial product range**

#### ✓Industrial Dry-Shake hardener

✓Trowel Hard- Nano Silica finishing aid

Sleek – Diamond maintenance disc's

## CREATE BRIGHTER, LIGHTER, HEALTHIER AND MORE PRODUCTIVE SPACE

Light reflectivity impacts directly to functionality, productivity, cousines, safety and energy consumptionv of a space. Light reflectance value (LRV) tells how much the surface reflects daylight and artificial light. All white surface has the value 100% and all black matt surface gets 0%. Floors with high LRV values helps reflect the light all around the space. Energy consumtion can be effected by the colour scheme of the interior

White surfaces are not done only with epoxy anymore, now you can have the same esthetic look with maintenance free, high durability dryshake.

### LRV on different surfaces:

- Concria Optimal Slab White 75%
- Concria Optimal Slab Light gray 44%
- Polished concrete surface 24%
- ✓ Concrete (OPC) 19%
- ✓ Burn finished concrete 11%





## **HIDE METAL FIBERS**

The benefits of using dry-shake toppings in concrete floors have been known for a while. In Slab-on-grade floors, where typically steel and plastic macrofibres are used, visible fibers on the top are a problem. Plastic fibers can be burned away but removing steel fibers is a challenge. Patented Concria Optimal Slab<sup>™</sup> Industrial floors hide all metal and plastic fibers, as you can easily apply 7 kg of dry-shake per m2 with Concria<sup>™</sup> Trowel Hard nanosilica.

# Permissible amounts of fibers remaining on the surface (fiber / m2)

| Floor type         | Good quality          | Normal Quality    |
|--------------------|-----------------------|-------------------|
| No Dry shake       | Less than<br>6 fibres | from 6 -10 fibres |
| Dry Shake<br>Floor | Less than<br>3 fibres | from 3-6 fibres   |

| Concria Optimal<br>Slab™ floor* | ~0 fibers | ~0 fibers |
|---------------------------------|-----------|-----------|
|---------------------------------|-----------|-----------|

\* Optimal Slab 7kg/m2 installed in 2 layers

# **RIGHT DRY SHAKE FOR ANY SPACE**

Concria offers three different dry-shake hardeners with different wear resistance, impact resistance, and strength. Therefore, a suitable Concria Optimal Slab<sup>™</sup> Industrial solution can be found for medium, hard, and extreme wear, e.g., industry, data centers, and logistics centers.

| Aggregate | Böhme | BCA   | Flexural trength | Polypropylene<br>fibers | Kg/m2  | Traffic intensity |
|-----------|-------|-------|------------------|-------------------------|--------|-------------------|
| Quartz    | A6    | AR0,5 | 10 N/ mm2        | Х                       | 4-8 kg | Heavy             |
| Metal     | A3    | AR0,5 | 10 N/ mm2        | Х                       | 4-8 kg | Heavy - Extreme   |
| Corundum  | A1,5  | AR0,5 | 10 N/ mm2        | X                       | 4-8 kg | Extreme           |

NOTE! The dry-shake is installed in two layers of at least 6 kg if the designer has specified a Böhme value.

## **SURFACE FINISHING AND COLOR OPTIONS**

Burn finishing with a power trowel is typically enough for industrial floors. The floor becomes smooth and easy to keep clean. If you want the best possible surface, you should also grind and polish it with the Concria™ Fast power trowel polishing system to a high shine. Concria Optimal Slab™ Industrial has one primary color; Concrete Gray. Our dry shakes are also available in all RAL colors.



## Concria Optimal Slab™ Industrial flooring is used in

#### Industrial and parking garages

- Logistics and data centers
- ✓ Waste management facilities
- ✓ Terminals





Our dry shakes are also available in all RAL colors.

## CONCRIA OPTIMAL SLAB FLOOR™ HAS A VERY FAST ROI

Pricing of Concria Optimal Slab<sup>™</sup> is competitive with traditional dry-shake flooring, but the benefits are far greater:

- ✓ The risk of plastic shrinkage is significantly reduced
- ✓ Better adhesion to the base concrete
- ✓ More uniform color and completely dust-free surface
- ✓ A smoother and denser surface makes it easier to clean
- ✓ Longer service life and almost maintenance-free
- Reliable even in difficult casting conditions

## LOW MAINTENANCE COSTS AND LONG LIFE

Concria Optimal Slab<sup>™</sup> Industrial dry-shake floor beats conventional floor toppings such as epoxy in cost-effectiveness, maintenance-free and longevity. The screed is completed by a single contractor in connection with the floor casting, and no separate installation process is required. You must renew the standard floor topping approximately 10 to 15 years when the corresponding service life on dry-shake floors is more than 50 years. If the Optimal Slab<sup>™</sup> floor needs maintenance, it is enough to polish it without closing the premises.

Standard floor topping 10-15 years

SERVICE LIFE

Concria Optimal Slab™ Over 50 years

0 years

25 years

## CONCRIA OPTIMAL SLAB <sup>™</sup> SCREED CEMENTITIOUS HARD AGGREGATE SCREED SOLUTION FOR EXISTING FLOORS

Generally, it is thought that an old concrete surface will always need to be maid off and make a whole new floor. Often this is not required. Paying for a worn-out concrete floor is not substantially impaired, with a hard concrete solution to make the floor surface look new. The screed is applied to the milled and primed surface in a layer of 10–15 mm. The next step is to trowel and treat the surface according to the Optimal Slab <sup>™</sup> process.

Concria Optimal Slab <sup>™</sup> Deco and Screed are similar in terms of features, color, and surface treatment options. The only difference is the way it is installed. Deco is installed with dry to wet method, and Screed is installed with wet to dry method. With screed you can repair cracks, etc. on the finished Deco surface. The repaired surface does not stand out much from its surroundings.



A-103, Venakatesh Nisarg Apartment Vadagaon Budruk 411041 Pune, Maharashtra, India

www.concria.com