DUROSTONE®

installation guide

for dry-shake (dry–to–wet) or slurry (wet–to–wet) applications

Surface hardeners manufactured by Durostone Kft. are suitable for constructing industrial floors to support – depending on type – medium to heavy duty use traffic (plants, workshops, warehouses, stores, garages etc.).

INSTALLATION CONDITIONS

- Quality of concrete: minimum C20
- Completely isolated work area (from above and from the side)
- Minimum temperature: +5°C

GENERAL REQUIREMENTS

Air-entraining admixture should not be used for the concrete. Any excess water or chemicals floating on the top of the concrete should be removed. The fresh, step resistant concrete should be pre-polished by a trowelling machine and it is recommended to roughen the surface using a broom before spreading the surface hardener. Care should be taken that the cement slurry or fine pulp not to remain on the surface.

APPLICATION

DRY–TO–WET APPLICATION.

In case of manual spreading the surface hardener premix should be evenly spread in maximum quantities of 6 kg/m² onto the surface in two to three layers. The achievable layer thickness by such method is approx. 2-4 mm. In case of screed machine used higher material consumption is also possible, although it is recommended that the second layer should be applied by a hand on the troweled concrete surface. Make sure that the concrete is wet enough to accept the dry shake hardener, moreover, ensure the spreading to be as even as possible. Every layer must be worked in by a trowelling machine. This trowelling process can be started 15-20 mins after spreading. Avoid additional water application as much as possible. The trowelling process should be continued until a completely dry, closed, hard surface is achieved. Industrial floors constructed by surface hardener material are becoming shiny, smooth and dust free – as the floor becomes harder – by adjusting the flaps of the trowelling machine to a higher slope.

WET–TO–WET APPLICATION.

In case of slurry application (min. 10 kg/m²) the dry shake hardener should be blended with water on the job-site by adding ca. 3,5-4 liter of water to a 25 kg bag – until completely homogeneous, dense dollop is achieved. The slurry must be applied on the step resistant concrete.

During the spreading of the slurry the level must be monitored by laser. Using 12 kg/m² of material, an approximately 5-6 mm layer thickness can be achieved.

The trowelling process can be started depending on the drying of the slurry. First a lighter one disc trowel then the heavier two disc trowelling machines can be used. The finishing phase is exactly the same as it was described in the manual spreading section.

Slurry application method is suggested for intensive, heavy duty traffic utilizations and in such cases where the floor is light in color and the aesthetic, homogeneous color is an important factor. Take special care in water quantities, because using a very dilute slurry cannot ensure the evenly distributed layer thickness, moreover, during the drying period the surface is more prone to crack as result of shrinkage.

Installation time always depends on the environmental factors: Temperature, humidity, quality of concrete, binding decelerator or use of any additional additive. Besides the applied surface hardener, the hardness of the surface highly dependent on the work carried out by the trowelling machines. The more the power trowel works on the floor, the harder and closer the surface will become. Floors constructed by using Durostone Kft. distributed surface hardeners can only be immaculate in case of the absolute and precise obedience of the installation guide.

CURING – AFTER CARE

To avoid the quick drying of the concrete DUROCURING or DUROSEAL impregnating liquid should be sprayed on to the floor right after the finishing operation.

FIRST TIME USE

After 7 days for light traffic and after 28 days for normal traffic.

MAINTENANCE

For cleaning purposes of the surface hardener constructed floor, use only Ph neutral (or nearly natural) detergents and use cleaning machines only with non-scraping discs. The cleaning of the floor is might be outsourced to a specialized company.

ENVIRONMENTAL PROTECTION – WORK SAFETY

Includes cement. Avoid dust inhalation, irritative material, avoid continuous contact with skin, because can cause allergic reactions. In case of eye contact, wash out the material with plenty of water and consult a physician. Always wear appropriate safety equipment during application and handling (protective mask, protective goggles etc.).

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