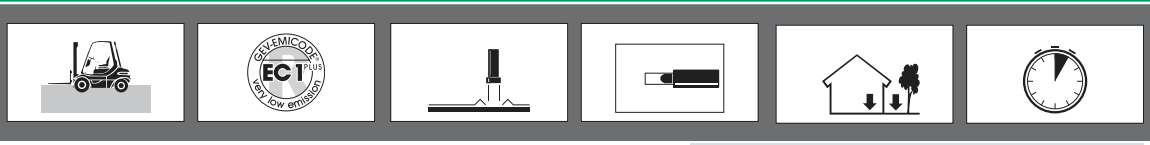
SCHÖNOX DSP PLUS

Self Drying, Self-leveling Concrete Topping

Designed for a variety of applications over suitable concrete from retail environments, restaurants, public buildings, entry ways, offices to warehouse or manufacturing areas with moderate industrial loads. SCHÖNOX DSP PLUS provides an extremely dense and durable surface to be polished in interior and exterior areas. SCHÖNOX DSP PLUS can be installed above 3/8" up to 2".



Product characteristics

- EMICODE EC 1 PLUS R: very low emission
- for interior and exterior use
- moisture resistant
- self-leveling
- polishable
- high density
- low shrinkage
- pumpable
- suitable for castor wheel loadings
- suitable for use as a polished topping in industrial applications above 3/8"
- tested in accordance with ASTM C1708

Applications

SCHÖNOX DSP PLUS is suitable to resurface polished concrete under:

- suitable sealers, densifiers and coatings when installed as a concrete topping

as well as under:

- SCHÖNOX Moisture Mitigation Systems

Substrates

SCHÖNOX DSP PLUS is suitable on:

- concrete, cement substrates (CSP 3)

Requirements of substrate

- Subfloors must be smooth, sound, clean, dry and free of any contaminants which may hinder adhesion.
- Surface treatments or any "friable" areas of the subfloor must be mechanically removed back to a sound base and the substrate repaired with SCHÖNOX repair compounds as required.
- This product is not a vapor barrier and will allow free passage of moisture. Follow the directions of the floor covering manufacturer regarding the maximum allowable substrate moisture content and test the substrate prior to installing SCHÖNOX DSP PLUS. Where substrate moisture exceeds the maximum allowed the application of SCHÖNOX SDG PLUS, SCHÖNOX MR 18 or SCHÖNOX EPA may be used to suppress residual moisture.
- Old water-soluble adhesives should be removed completely, old water-resistant adhesives should be removed as far as possible. The complete mechanical removal of cutback (i.e. grinding, sanding, blasting) can be hazardous as old cutback adhesive may contain asbestos. Do not sand or grind adhesive residue. Refer to the Resilient Floor Covering Institute's publication "recommended work practice for removal of resilient floor coverings" for instruction. Prime remaining adhesive residues accordingly.
- The requirements of the relevant valid standards (such as ASTM 2873-13), guidelines and data sheets apply.

Priming

- **Properly profiled concrete (CSP 3):** Prime with SCHÖNOX EPA (followed by SCHÖNOX SHP) to achieve a non-porous substrate avoiding surface irregularities such as pin holing and a suitable physical bond to take the physical loading of the polishing process.

Concrete polishing and tooling: Polishing is a multi-step process typically using a suitable planetary Grinder and Polisher with metal (Diamond impregnated pads of 60-80 grits), transitional (Diamond impregnated pads of 100 grits) and resin stages (Diamond impregnated pads of 100, 200, 400, finer grits as required) prior to using a Micro Polisher (using Diamond impregnated pads of 400, 800, finer grits as required) following the Polishing Guideline of the Sealer and Densifier Manufacturer.

Mixing ratio

- mix each 25kg / 55lb. bag with 3.0 l / 3.1 quarts of water
- We recommend to extend SCHÖNOX DSP PLUS with dry, clean aggregate (aggregate is added last) at a layer thickness above 1/2": type and amount of aggregate used will affect product performance. As qualities of locally available aggregates vary, we recommend to perform tests prior to use on a larger scale.
  Do not overwater! Foam while mixing, or settling of the sand aggregate while placing, indicates overwatering.

Recommended method of working

- Using a clean mixing barrel, add SCHÖNOX DSP PLUS to cold, clean water to form a homogeneous mixture. Mix thoroughly for approx. 3 minutes using a heavy-duty drill (min. 600 rpm) to obtain a lump-free mix. Pour the mix and spread using a smoothing trowel. Even surfaces are easily achieved using a gauge rake.
- Avoid contact to vertical structures by putting in an edge strip such as SCHÖNOX FOAMTAPE.
- Protect curing SCHÖNOX DSP PLUS from high ambient temperatures, direct sunlight, draughts and ensure an adequate air circulation.
- **The cured surface of SCHÖNOX DSP PLUS must be protected from any type of contamination by installing a suitable coating.** SCHÖNOX DSP PLUS accepts most penetrating hardeners and densifiers and a wide variety of sealers, as well as epoxy and urethane coatings (perform mockup tests to verify optimal time for sealing or coating). Always follow the installation guidelines of the coating manufacturer.

Technical data

- pot life: approx. 30 minutes
- ready for foot traffic: approx. 2 - 3 hours
- ready for grinding (wet or dry):
  - after approx. 24 hours
- working temperature: 41°F - 90°F
- coverage per unit:
  approx. 12 sq.ft. at 3/8"
  (depending on substrate conditions)
- compressive strength (ASTM C109):
  7250 psi / 43 N/mm² / 580 kg/cm² after 28 days
  4250 psi / 25 N/mm² / 300 kg/cm² after 1 day
- flexural strength (ASTM C348):
  approx. 1300 psi / 10 N/mm² after 28 days
- tensile strength (ASTM C1583)
  above 400 psi / 2.5 N/mm² after 3 days
- initial Set (ASTM C191): approx. 80 minutes
- final Set (ASTM C191): approx. 95 minute
- abrasion resistance (ASTM D4060):
  approx. 1.2 after 28 days
- cured density: 130 lbs. / cu.ft.
- flammability (ASTM E84):
  Flame Spread 0; Smoke Development 0

All values are approximate, are subject to local climatic fluctuations based upon conditions at 70°F with atmosphere of less than 65 % relative humidity following the recommended mixing ratio. Do not install underlayment or topping before the substrate has dried thoroughly.

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- **SCHÖNOX DSP PLUS can generally be stained, colored or aggregated at the discretion of the installer/specifier.** Type and amount of colors and suitable aggregates used may affect the performance (such as self leveling properties) of SCHÖNOX DSP PLUS. Always test in a small, well defined area.
- All cement based products have the potential for cracking. Cracking, such as hair line cracking cannot be considered as a product defect or installation failure. The wear surface of SCHÖNOX DSP PLUS is not intended to be perfectly homogenous in appearance. Therefore optical variations of the surface should be expected.
- Clean tools in water immediately.

Packaging
- 25kg / 55lb. net weight in paper bags

Storage
- Store in cool and dry conditions.
- Shelf life: 12 months unopened.
- End of shelf life does not generally indicate the end of the products suitability for the intended use. Always test in a small area.

Disposal
- Empty packaging and dispose of in accordance with federal, state and local waste disposal regulations.

VOC Content
- 0g/l (calculated), SCAQMD 1113

LEED
May help contribute to LEED v4 certification of projects in the categories:
- EQc2 - 3 points
  Low-Emitting Materials
- MRc1 - up to 2 points
  Life-Cycle Impact Reduction
- MRc2 - 1 point
  Environmental Product Declaration
- MRc4 - 1 point
  Material Ingredients

Environmental Product Declaration (EPD)
- Declaration number: EPD-DIV-2013311-EN

Instructions
- Always install an adequate number of properly located test areas, to include the complementary products, to determine the suitability of the product for its intended use.
- Low substrate temperatures and/or high ambient humidity require longer drying times.

Precautions
- SCHÖNOX DSP PLUS contains Portland cement and sand aggregate. Avoid eye and skin contact. In case of contact, rinse immediately with plenty of water. In case of contact with eyes seek additional medical advice. Mix in a well-ventilated area and avoid breathing powder or dust.
- Never mix with cement or additives other than SCHÖNOX approved products. Observe the basic rules of concrete work. Do not install below 41°F surface temperature. Install quickly if substrate is warm.

Prior to each use of any SCHÖNOX product, the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at www.schonox.us, or by calling the HPS SCHÖNOX Technical Service Department at 855-391-2649. Nothing contained in any SCHÖNOX materials relieves the user of the obligation to read and follow the warnings and instruction for each SCHÖNOX product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to product use. This product data sheet supersedes all previous editions.

Management system certified to ISO 9001 and 14001 by SQS.

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