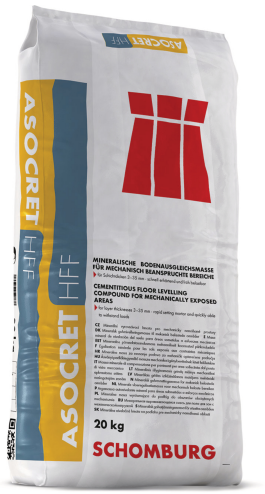
ASOCRET-HFF

Cementitious industrial flooring for mechanically exposed areas



Material number	Contents	Unit of quantity	Packaging	Colour
201362001	20	KG	Bag	Grey

Advantages

- Creation of demanding wearing surfaces
- Long working time
- Safety through working in a predetermined product system
- Packed waterproof in a foil sack

Product features

- CT-C50-F7 per DIN EN 13813
- Shrinkage compensated
- Rapid setting mortar and quickly able to withstand loads
- High wear and abrasion resistance against air, solid rubber and Vulkolan tyres
- Vapour permeable
- Resistant to chlorine and CO2
- Sulphate resistant

Areas of application

- For the production of rapidly usable, smooth and wear-resistant surfaces (e.g. commercial floors, loading ramps, garages, basement floors)
- Easy-care substrate in combination with sealing and coating
- Easy-care substrate with a concrete look in combination with impregnation
- For layer thicknesses of 3–35 mm
- For interior and exterior use

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Technical Data

Material properties

Product components	1 component system
Base material	Pre-blended dry mortar
Bulk density of fresh mortar	approx. 2.1 kg/dm³
Compressive strength (24 hrs.)	approx. 25 N/mm²
Compressive strength (7 days)	approx. 38 N/mm²
Compressive strength (28 days)	approx. 52 N/mm²
Flexural strength (24 hrs.)	approx. 5 N/mm²
Flexural strength (7 days)	approx. 6 N/mm²
Flexural strength (28 days)	approx. 7 N/mm²
Tensile adhesion strength DIN EN 1542	≥ 1.5 N/mm²
Capillary water absorption	> 0.1 kg/m²
Impaired shrinkage	approx. 1.7 N/mm²
Chloride ion content	≤ 0.05 %
Carbonisation resistance	Passed
Length change after 56 days (wet storage)	+ 0 mm/m
Length change after 56 days (dry storage)	- 0.5 mm/m
Skid resistance class	R10 in combination with REMISIL-SI
Classification of the reaction to fire in accordance with DIN EN 13501-1	A1fl

Mixing

Mixing time	approx. 3 - 5 minutes
Water addition	from 3.6 l to 4 l

Application

Substrate/application temperature	from 5 °C to 35 °C
Consumption pro m² and mm layer thickness	approx. 1.8 kg
Foot traffic after	approx. 3 - 4 hours
Can be driven on with soft tyres after (axle load < 2 t)	approx. 24 hours
Can be drive on with forklift trucks after	approx. 48 hours
Pot life	approx. 30 - 45 minutes

Application technology

Aids/tools

- Stirrer (approx. 500-700 rpm)
- Collomix stirrer type KR
- Collomix stirrer DLX 140 to 160
- Flail squeegee
- Swedish squeegee
- Long handled rake
- spiked roller
- Buffing rod

Manual processing

Distributable with flail squeegee / Swedish squeegee

Machine application

- ASOCRET-HFF can be mechanically applied. For precise information, see the additional Technical Information No. 43.
- The discharge dimension must be continuously checked with mechanical application. This is done using a PFT consistency test socket. The discharge dimension must be determined on a moistened glass plate and should be approx. 60 cm.

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Suitable substrate

- Concrete substates in accordance with DIN 1045
- Heated and unheated cement-based screeds in accordance with DIN EN 13813
- Rapid cement screeds

Substrate preparation

Requirement for substrate

1. Dry
2. Firm
3. Free of adhesion inhibiting substances
4. The substrate must correspond to the payloads associated with the load-bearing capacities that are in accordance with DIN 1055.
5. The tear-off strength of concrete substrates must not exceed an average of 1.5 N/mm² (lowest individual value 1.0 N/mm²).

Preparing the surface

1. Remove oil wax residues using ASO-R008.
2. Prime cementitious substrates with a moisture content of < 4% and water vapour resistance of < 0.6 g/m² h with ASO-Unigrund.
3. In substrates with rear-sides or increased moisture load in exterior areas, with old, firmly adhering epoxy resin coatings or increased mechanical loads, prime with ASODUR-SG2 or ASODUR-SG3-superfast and then sprinkle with plenty of quartz sand with an aggregate grain of 0.5 – 1.0 mm. After the reaction has taken place (approx. 16 hrs), brush off any excess quartz sand.
4. Old, firmly adhered, load-bearing reaction resin coatings must be ground before coating with ASOCRET-HFF and primed with ASODUR-SG2 or ASODUR-SG3-superfast.
5. The temperature of the air, material and substrate may not fall short of +5 °C during application, and during the following week.
6. In the case of substrates damaged by de-icing salt, the substrate must be removed down to the neutral area using suitable measures.
7. Fill deeper damaged areas and holes using ASOCRET BIS system, cracks must be filled with ASODUR-GH-S.
8. In the vicinity of adjacent walls and other ascending building components, a self-adhesive edge strip, e.g. RD-SK50, must be provided in order to prevent straining of the material. Existing joints in the substrate must be brought through, the flow of material in these joints must be prevented using suitable measures.

Usage

Mixing

1. Put the water into a clean mixing bucket and mix with the powder component with a stirrer to produce a homogeneous, lump-free mass.
2. In between, scrape the unmixed material from the side walls with a trowel and feed it to the mixing process.
3. The mixing time is ca. 3 - 5 minutes.

Application

1. Pour ASOCRET-HFF onto the primed substrate, and use a suitable tool (surface rake, long-handled rake) to distribute it evenly during the pot life up to the desired height level. Apply the relevant layer thickness in an application step, whereby the still liquid layer is de-aerated or stimulated to flow with a spiked roller, buffing rod or another suitable tool.
2. For transparent protection of the surface against dirt and liquids, the dried surface can be impregnated with REMISIL-SI after a waiting time of ≥ 6 hours.
3. Coloured seals can be created with ASODUR-V360W. The surface coated with ASOCRET-HFF must be checked beforehand to ascertain whether it needs to be prepared by grinding, etc.
4. Applications in exterrior areas or surfaces with increased moisture pressure, coating with ASODUR-B351 is required.
5. After removing the protruding edging strips, connecting joints must be sealed with INDUFLEX-PU.
6. The coating must be protected against weathering influences, e.g. strong solar radiation, wind loads etc., and against mechanical damage or loads using suitable measures in the first 24 hours.
7. ASOCRET-HFF can be driven on by vehicles that have soft tyres after approx. 24 hours. After 48 hours, the surface can be driven on by forklift vehicles. With vehicles fitted with polyamide tyres, there is a risk of surface damage and they should therefore be ruled out.

Cleaning tools

Clean tools thoroughly with water after use.

Storage conditions

Storage

Store in a cool and dry place. Min. 12 months in the original canister. Promptly use opened canister.

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Notes

- Protect surfaces that are not to be treated from the effects of ASOCRET-HFF!
- When it comes to a cement-based screed, the carbide method moisture content may not exceed 2.0 CM%. The CM measurement must be completed in accordance with the current working instructions FBH-AD from the technical information "Interface coordination with heated floor constructions".
- Border, field, building separation and movement joints should be carried over to or installed at the designated location; suitable means (e.g. edge strips) should be used to detach them! Please observe BEB datasheet 5.2 "Information for joints in screeds".
- Due to the different absorption behaviours of the substrate, increased humidity, premature water loading and natural variations of raw materials, slight clouding (white colouring) may occur on the hardening surface.
- The coating must not be affected by water while it is binding. The effect of water from behind can lead to spalling in case of frost.
- The setting ASOCRET-HFF should be protected against rapid water removal (e.g. due to a high room temperature), direct solar radiation and draughts!
- Ideally, any potential skimming operation involving the use of ASOCRET-HFF should be carried out when the first layer is walkable, but still visibly damp (this can be discerned on the basis of the darker colour). If the first layer is dry, intermediate priming with epoxy resin primer, e. g. ASODUR®-SG3-superfast, is required.
- Exceeding the water quantity specified leads to lower strength and increased shrinkage. In addition, shrinkage cracks may occur, but these do not have a significant effect on the function of the product if the substrate adheres well
- Direct contact with metals such as copper, zinc, and aluminium must be avoided by means of a pore sealed primer. Pore-sealed priming is produced via 2 application steps using ASODUR®-GBM or ASODUR®-SG3-superfast. The first application step is generously applied to the degreased and cleaned substrate. After a waiting time of approx. 3–6 hours, the second application step takes place and sprinkling with quartz sand with an aggregate of 0.2–0.7 mm. Consumption approx. 800–1000 g/m².
- If a mixing pump (e.g. PFT G4 or G5 or the like) is used, the mixing pump and hoses must be rinsed in case of interruptions of work!
- Note on choosing the right spiked roller: The length of the spikes must be as least 3 times the thickness of the layer applied. Supplier examples: www.polyplan-hamburg.de or www.maxinox.de.
- The temperature of the air, material and substrate may not fall short of +5°C during application, and during the following week.

Observe applicable safety data sheet!