



Chem Coats (Pvt) Ltd.

ChemFlo HPU AM

High Strength polyurethane self-levelling Mortar with Long-term Anti-Bacterial property

DESCRIPTION

ChemFlo HPU AM antimicrobial system is an essential part of a holistic interior design concept which means whole 6mm floor can resistant bacteria and surface abrasion. It has both qualities healthy and functional. The bacteriostatic surface meets the most stringent hygiene requirements, inhibiting both bacterial growth and the cross-contamination of germs. Certificates issued by independent test laboratories confirm that this floor still has a bacteriostatic effect after many years of use with regular cleaning.

USES

ChemFlo HPU AM floor is suitable for applications in light industrial workshop and concrete substrate areas, to provide vertical, coving and detailing solutions in areas of abrasion and high chemical exposure, such as in:

- Food processing area.
- Hospital, surgery room
- Public food area, Central kitchen
- Laboratories
- On properly prepared and supported steel surfaces, such as in: steel decks, overpasses or platforms.

PERFORMANCE DATA

- Pass GB/T 21866-2008 Test method and effect for antibacterial capability of paints film
- Pass GB/T 21866-2008 Test method and effect for antibacterial capability of paints film: Stability test for antibacterial activity.
- 99.99% Antibacterial rate for both short-term and stability (long term)
- Impact Resistance: With high mechanical strengths and a low elastic modulus, **ChemFlo HPU AM** is very resilient and able to withstand severe impact loads.
- Temperature Resistance: **ChemFlo HPU AM** floor is fully resistant to liquid spillage and discharge up to 65°C suitable for freezer temperatures down to -10 °C.
- **ChemFlo HPU AM** floor is readily cleaned and maintenance, excellent anti permeability and wear resistance.

Chemical Resistance:

ChemFlo HPU AM offers exceptional resistance to a wide range of chemical aggressors. For example:

- **ChemFlo HPU AM** is resistant to spillages of the following commonly encountered classes of chemicals.
- Most dilute and concentrated organic acids such as, Acetic acid, Lactic Acid, Oleic Acid and Citric Acid as commonly found in the food industry.
- Dilute and concentrated acids: hydrochloric, nitric, phosphoric and sulphuric.
- Dilute and concentrated alkalis, including sodium hydroxide at 50% concentration. Animal fats and vegetable oils, sugars flavorings and essences.
- Mineral oils, kerosene, gasoline and brake fluids.
- A wide range of organic solvents including Methanol, Xylene Ethers and Chlorinated solvents.
- Note: Some staining or discoloration may occur with some chemicals depending upon the nature of the spillage and the standards of housekeeping employed.



Extensive chemical resistance tables are available in the separate data sheet 'A guide to the chemical resistance of Flooring'. For detailed information, please contact **ChemCoats** representative for guidance.

SURFACE PREPARATION

Substrate Quality:

- The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².
- The substrate must be clean, dry and free of all contaminants such as oil, grease, coatings and surface treatments, etc.
- If in doubt, apply a test area first.

Substrate Preparation:

- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance.
- Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids and surface leveling must be carried out using appropriate products.
- High spots can be removed by grinding.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

PROPERTIES DURING APPLICATION	20° C
Pot life	25 min.
Light Foot Traffic	24 Hrs
Fully Cured	7 Days
Density (Mixed)	2.0 Kg/mm/m ²
Coverage	2 Kg/m ² /1mm Thickness
Packaging	20 Kgs kit
Colour	Two standard colours : green (RAL 6001) and red (RAL 3002) or as required

CHEM COATS PRIVATE LIMITED Monnoo Chowk, Defence Road, Off Raiwind Road, Near Nobel TV, Lahore, Pakistan. Tel: +92 42 35322201-03 Fax: +92 42 35322204
www.chemcoats.com.pk, Email: info@chemcoats.com.pk



PROPERTIES OF DRY FILM	
Compressive strength	> 50 MPa
Flexural strength	> 15 MPa
Bond strength	>1.7 Mpa
Single construction thickness	3-6mm

Note: 1.The colour encoding only for reference, the colour difference does not affect the floor function; Samples cured for 28 days at 20°C

2. The values shown are typical of results obtained in the laboratory at 20°C. Actual performance values obtained on site may vary from those quoted.

MIXING

Mixing: Part A: B: C = 2.65: 2.85: 14.50 (by weight). Material and ambient temperature will affect the mixing process. If necessary, condition the materials for best use to 15°C –21°C. Premix part A and B separately, make sure all pigment is uniformly distributed with a low speed electric stirrer. Start mixer and add parts A and then B and blend for 30 seconds. Gradually add part C (aggregate) to the mixed resin parts over a period of 15 seconds. DON'T DUMP! Allow part C to blend for further 2 minutes minimum, to ensure complete mixing and a uniform moist mix is obtained. During the operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once (parts A+B+C) to ensure complete mixing. Mix full units only.

Mixing Tools: Use a low speed electric stirrer (300-400 rpm) for mixing parts A and B. For preparation of the mortar mix use a pan type revolving mixer.

COVERAGE

2 Kg/m²/1mm Thickness.

APPLICATION

Application Conditions / Limitations:

- Substrate Temperature: +5°C min. / +38°C max.
- Ambient Temperature: +5°C min. / +38°C max.
- Relative Air Humidity: 85% max.
- Dew Point: Beware of condensation! The substrate and uncured floor must be at least 3°C above dew point to reduce the risk of condensation or blooming on the floor finish.

Application Method:

Apply the mixed **ChemFlo HPU AM** onto the ready treated substrate and compact to the appropriate thickness, and then finish the detailing profile with a coving trowel or steel float. Apply **ChemFlo HPU AM** while the primer is fully cured. Otherwise uncured **ChemFlo HPU AM** primer may cause bubbling problems.

Notes on Application / Limitations:

- Do not apply below 5°C or above 38°C or a maximum relative humidity above 85%.
- Do not apply to un-reinforced sand cement screeds, asphaltic or bituminous substrate, glazed tile or non-porous brick, tile and magnesite, copper, aluminium, soft wood or urethane composition, elastomeric membrane and fiber reinforced polyester (FRP) composites.
- Do not apply to cracked or unsound substrates.

CLEANING OF EQUIPMENT

ChemCoats brush cleaner before setting.

PACKAGING

Part A: 2.65kg plastic drum, coloured liquid

Part B: 2.85kg plastic drum, brown liquid

Part C: 14.50kg plastic lined, double paper bags, natural grey powder

Part A+B+C: 20.00kg ready to mix units

HANDLING & STORAGE

Parts A and B: 12months from date of production. Must be protected from frost.

Part C: 12months from date of production. Must be protected from humidity.

If stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +10°C and +25°C. Materials must be raised off the floor and kept dry. Liquid components must be protected from frost.

HEALTH & SAFETY

When wet, **ChemFlo HPU AM** is toxic and flammable. Ensure working area is well ventilated during application and drying. Avoid flames in vicinity. Avoid inhalation of dust and contact with skin and eyes. Suitable protective clothing, gloves, eye protection and respiratory protective equipment should be worn. The use of barrier creams provides additional skin protection. If contact with skin occurs, wash with water and soap. Splashes into eyes should be washed immediately with plenty of clean water and medical advice sought.

When cured, **ChemFlo HPU AM** is inert and harmless.

IMPORTANT NOTE

The information given in this data sheet is based on current development work and many years of field experience. Whilst every effort is made to ensure that the information is reliable, we cannot accept responsibility for any work carried out with our materials as we have no controls over methods of applications, site conditions etc. In view of the continuing research and development being undertaken in our laboratories we advise customers in their own interest to ensure that this data sheet has not been superseded by a more up-to-date publication. All products are sold subject to our standard conditions of sale which are available on request. Field services, where provided, does not constitute supervisory responsibility. For additional information, please contact your local **ChemCoats** representative.

RANGE OF PRODUCTS

<u>WATERPROOFING SYSTEMS</u> <u>INDUSTRIAL FLOOR SURFACES</u> <u>PROTECTIVE COATINGS</u>	<u>PREPACKED REPAIR MORTARS</u> <u>CEMENTITIOUS & EPOXY GROUTS</u> <u>CONCRETE ADMIXTURES</u>	<u>SEALANTS</u> <u>CRACK INJECTION</u> <u>CONCRETE ADHESIVE</u>
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