

FloArm Cempo 4

(Formerly known as MYK Cempo 104)

4-part cement and epoxy combination mortar for self-smoothing floor screeds of 4 to 7 mm



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Product Description

FloArm Cempo 4 is a four part; epoxy modified cementitious, fine textured mortar for self smoothing floor screeds in thin layers of 4 to 7 mm.

Uses

A. As a Temporary Moisture Barrier (TMB) (min. 4 mm thick) under Epoxy, Polyurethane and MMA resin floors, over high moisture content substrates, even green concrete.

It can also be layed on dry concrete.

B. As a self-smoothing screed for:

- Leveling or patching horizontal concrete surfaces, in new work or repairs, particularly in aggressive industrial environments.
- Floor topping on non-ventilated damp substrates without particular aesthetic requirements.
- Leveling layer under Epoxy, Polyurethane and PMMA floor coatings / screeds, tiles, sheet floors, carpets or wooden floors.
- Repair and maintenance of monolithic and vacuum concrete floors.

C. Extended with quartz sand, as a patching and repair mortar Under Epoxy, Polyurethane and PMMA floor coatings/screeds.

Designed for use on cementitious substrates
(See Notes on Application/Limitations)

Features and Benefits

- Can be top coated with resin based floors after 48 hours (+20°C, 75% r.h.),
- Layer thickness between 4mm to 7 mm ensures greater options
- Prevents osmotic blistering of resin-based coatings over damp substrates.
- Economical and fast, easy application.
- Good leveling properties.
- Impervious to liquids but permeable to water vapor.
- Frost and de-icing salt resistant
- Good chemical resistance
- Moderate chemical resistance.
- Thermal expansion properties similar to concrete.
- Excellent bond to green or hardened concrete whether damp or dry.
- Excellent early and final mechanical strengths.
- Good resistance to water.
- Ideal preparation for smooth surface finishes.
- For internal or external use.
- Contains no solvents, Very low VOC.
- Will not corrode reinforcement steel and adds extra protection for steel reinforcement.

Product Conforms to the requirements of EN 13813: 2002 as CT – C40 – F7 - A9.

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Application Methodology

Substrate Quality

The concrete substrate must be sound with Compressive strength minimum 20 N/mm² and a minimum pull off strength of 1.5 N/mm². The substrate can be damp but must be free of standing water and free of all contaminants such as oil, grease, coatings and surface treatments etc. If in doubt, apply a test area first.

Step no 1: Substrate Preparation

Concrete substrates must be prepared mechanically using abrasive blast cleaning, scarifying or grinding equipment to remove cement laitance and achieve an open textured surface. Weak concrete must be removed and surfaced effects such as blow holes and voids must be fully exposed. Repairs to the substrate, filling of blow holes/voids and surface leveling must be carried out using appropriate products from the MYKA Repair & Restoration range of materials. 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 or vacuum.

Note: Ensure the concrete should be wet with water up to SSD condition with no standing water on the substrate.

Step no 2: Product Mixing

Prior to mixing, shake part A (Base) (white liquid) briefly until homogenous, then pour into container of part B (hardener) and shake vigorously again for at least 30 seconds. When dosing out of drums, stir and homogenise first.

Pour the mixed binder mixture (A+B) into a suitable mixing container (capacity of about 30 liters), mix the same for 30 seconds and then add part C (filler) to the mixer while stirring with a power mixer. Mix thoroughly for 5 minutes until a uniform mix has been achieved.

Mixing Tools: - Mix using a slow speed electric mixer (300 - 400 rpm) with helical paddle or other suitable equipment. Recommended are single or counter rotating double mortar (basket type) and forced action (pan type) mixers. Free fall mixers must not be used.

Step no 3: Application Method / Tools:

Place mixed FloArm Cempo 4 onto the primed substrate and spread evenly to the required thickness uniformly with a 6 mm V notch trowel and immediately roll with a spike roller to remove entrapped air and obtain an even thickness layer. Do not use additional water, which would disturb the surface finish and cause discoloration. A seamless finish can be achieved if a "wet" edge is maintained during application.

Waiting Time / Over Coating:

Before applying FloArm Cempo 4 on Primer FloArm Primer EPW -44 In wet or tacky condition. Primer allow.

Substrate temperature	Waiting time	
	Minimum	Maximum
+15°C	Wet primer(SSD)	Till Tacky
+30°C	Wet primer(SSD)	Till Tacky

FloArm Cempo 4 can be overcoated with vapour tight coatings when the surface humidity falls below 4% Not earlier than:

Substrate temperature	Waiting time(General)
+15°C	3 days
+30°C	2 days

Note: Successive coats of FloArm Cempo 4 must be applied after priming with MYKA Primer and allowing at least the minimum times indicated above between applications. Times are approximate at 75% r.h. and will be affected by changing ambient and substrate conditions, particularly temperature and relative humidity.

System Information: System Structure The system configuration as described must be fully complied with and may not be changed.

A. Primer

Primer to the concrete substrate:- FloArm Primer EPW 44 is suitable for each of these substrates:

- Green concrete (<2 days old)
- Damp fresh concrete (< 7 days old)
- Aged concrete (with rising moisture)
- Dry Concrete (without moisture)

Contact MYKA Technical cell for application on fresh Concrete <2 days old.

B. Underlayment screed:- FloArm Cempo4(4 to 7mm).

C. Priming underlayment screed:- FloArm Primer 1260/1290.

D. Topping:- With a suitable product of the FloArm flooring and coating range.

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Application Details:

Consumption / Dosage

Primer: - FloArm Primer EPW - 44: Approx. 0.250 kg/m² dependent on the substrate conditions.

Self smoothing screed:-FloArm Cempo 4 ~ 2.25 kg/m²/mm, ~9kg/m² for a 4 mm thick application(minimum for T.M.B).

(These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage, etc. This consumption will group if there is an undulation in the floor).

Application Conditions / Limitations

Substrate Temperature +15°C min. / +35°C max.

Ambient Temperature +15°C min. / +35°C max.

Note: lower the atmospheric temp will take more time to get moisture below 4% after application

Substrate Moisture Content:

Can be applied on damp concrete, without any standing water, using FloArm Primer EPW – 44 wet on wet / tacky condition.

Relative Air Humidity:30% min. / 80% max.

Dew Point- ensures condensation does not occur. The substrate and uncured floor temperature must be at least 5°C above the dew point to reduce the risk of condensation or blooming on the floor finish.

Notes on Application / Limitations:

If FloArm Cempo 4 is used as TMB (Temporary Moisture Barrier), a layer of a minimum 4 mm thick must be applied.(9.0kg/m²). Always ensure good ventilation when using FloArm Cempo 4 in a confined space to remove excess moisture. Freshly applied FloArm Cempo 4 must be protected from damp, condensation and water for at least 48 hours. For external applications, apply primer and FloArm Cempo 4 on a falling temperature. If applied during rising temperatures "pin holing" may occur. External applications under extreme conditions (high temperature and low humidity) which can cause fast drying of the product must be avoided as the product does not allow the use of curing compounds.



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Do not add water to the mix under any circumstances. Floor cracks and joints require pre-treatment with MYK repair product range. The incorrect assessment and treatment of cracks can lead to a reduced service life and reflective cracking. Colour variations can occur on unsealed FloArm Cempo 4 through exposure to direct sun light. This however, will not adversely influence the mechanical properties. When overlaying with PMMA screeds, the surface of FloArm Cempo 4 must be fully broadcasted with sand of 0.4 - 0.7 mm.

Construction joints / Saw cut joints may also be treated with FloArm Cempo 4.

Curing Details:

Temperature	Foot traffic	Light traffic	Full cure
+30°C	~24 hours	~ 3 days	~28 days

Applied Product ready for use

Note: Times are approximate and will be affected by changing ambient and substrate conditions.

Cleaning / Maintenance Methods:

Due to the texture of its surface, FloArm Cempo 4 is not suitable to be used as wearing layer where easy staining can occur. A seal coat of the FloArm Primer range with suitable cleaning capabilities is advisable. Remove dirt using a brush and/or vacuum. Do not use wet cleaning methods until the product is fully cured. Do not use abrasive methods or cleaners.

Cleaning of Tools:

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

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Technical Data

Appearance / Colors	
Base	Emulsion white liquid
Hardener	Translucent yellowish liquid
Filler	Natural off-white aggregate powder
Mixed Colour	Off white
Finish	Matt
Chemical Base	Epoxy Modified Cementitious self leveling.
Mixed Density	2.15 kg/l (at +27°C)
Pot life (For 20 kg mixing mass)	
Temperature (RH. 75%)	Time
+15°C	45minutes
+20°C	25 minutes
+30°C	15 minutes
Layer Thickness (If FloArm Cempo 4 is used as a Temporary Moisture Barrier (TMB), a minimum of 2 mm must be applied)	4 mm min. / 7 mm max.
Thermal Expansion Coefficient (Temperature range 20°C to +60°C)(According to EN 1770)	Approx. 7.1×10^{-6} per °C
Water Vapour Diffusion Coefficient (μH_2O) (According to DIN 52 615)	Approx. 175, Equivalent Air layer depth for 4 mm thickness Sd 1.4m
Water Absorption Coefficient (According to DIN 52 617)	Approx. $0.07 \text{ kg/m}^2 \times \text{h}^{0.5}$
Fire Rating (According to EN 13501-1)	Class A2 (fl)
Service Temperature	0°C to +80°C for continuous exposure
Compressive Strength According to IS 9162 - 1979 (+30°C / 85 % r.h.)	
1 days	22 N/mm ²
7 days	40 N/mm ²
28 days	50 N/mm ²
Flexural Strength (According to IS 9162 - 1979) (+30°C / 85 % r.h.)	15 N/mm ² @ 28 days
Bond Strength > after 28 days (According to EN 13892-8) @+20°C and 50% r.h (100% concrete failure)	1.5 N/mm ²
Abrasion Resistance (According to IS 1237 – 1980)	0.7mm thickness loss

Chemical Resistance:

The FloArm Cempo 4 product has improved chemical resistance over plain concrete in aggressive environments but is not designed as a chemical protection. For specific chemical resistance, always overcoat with a suitable product of the FloArm Primer range. For occasional exposure or spillages, please consult MYK Arment representative.

Flooring & Coatings

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Packaging

Available in 26 kg composite kit pack

Storage and Shelf Life

6 months in unopened original sealed containers stored in dry warehouse conditions (+5°C - +25°C).

Health & Safety

Ensure adequate ventilation and avoid inhalation of vapours. Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

Disposal:

Spillages of component products should be absorbed on to earth, sand or other inert material and transferred to a suitable vessel. Disposal of such spillages or empty packaging should be in accordance with local waste disposal regulations. For further information, refer to the Product Material Safety Data Sheet.

Legal Note

The information, and, in particular, the recommendations relating to the application and end-use of MYK Arment products, are given in good faith based on MYK Arment current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with MYK Arment's recommendations. In practice, the difference in materials, substrates and actual site conditions are such that no warranty in respect of merchant ability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application & purpose. MYK Arment reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request.



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Product Categories Available

