

FloArm Cempo 10

(Formerly known as MYK Cempo 110)

3-part cement and epoxy combination mortar
for floor screeds of 10 to 100 mm



TECHNICAL DATA SHEET

Product Description

FloArm Cempo 10 is a three part epoxy modified cementitious, rough textured mortar for floor screeds in layers of 10 to 100 mm.

Uses

- A. As a Temporary Moisture Barrier (TMB) (min. 2 mm thick) under Epoxy, Polyurethane and PMMA resin floors, over high moisture content substrates, even green concrete. It can also be laid 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.

Features and Benefits

- Can be top coated with resin based floors after 48 hours (+20°C, 75% r.h)
- 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.
- 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 - C50 – F7 – A6.

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Application Methodology

Substrate Quality

The concrete substrate must be sound with Compressive strength minimum 20 N/mm^2 and a minimum pull off strength of 1.5 N/mm^2 . 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 the mixed FloArm Cempo10 wet on wet onto the still tacky primer and spread evenly to the required thickness with a suitable rake and compact by tamping. Level by means of a levelling beam across steel rails (10 mm), followed by mechanical finishing with synthetic disc power float, using a little water (injected through the jets situated on top of the disc). For applications in thicknesses above 30 mm, apply the mortar in at least two layers and compacting each of them separately. Workability can be adjusted by varying slightly the amount of part C. See "Mixing" above.

Waiting Time / Over Coating:

Apply FloArm Cempo 10 on Primer FloArm Primer EPW -44 in wet or tacky condition.

Do not lay FloArm Cempo2 on dry primer, if primed surface is dried, apply recoat of primer.

FloArm Cempo 10 can be over coated with vapor tight coatings when the surface moisture falls below 4%, not earlier.

Moisture below 4% can be reached if substrate temperature is:

+20°C - 3 days

+30°C - 2 days

The above figures are based on MYK Arments experience. It is highly recommended to check moisture at 6-hour intervals and immediately apply FloArm Cempo 10 once the moisture content is below 5%.

Note: Successive coats on top of FloArm Cempo 10 must be applied after priming with a MYKA Primer stated in this data sheet and allowing at least the minimum time indicated above between applications.

System Structure

Horizontal Repair and Patching:

Layer thickness : 10 - 100 mm

Primer : ReArm Bond SBR + white cement (1:1)

Topping : FloArm Cempo 10

Interlayer priming:

Substrate: FloArm Cempo 10

Primer: FloArm Primer 1290

Topping: FloArm Cempo 2 or FloArm Cempo 4

Application Details:

Consumption / Dosage

Primer: ReArm Bond SBR + white cement (1:1) :- 0.4 - 0.5 kg/m² dependent on the substrate conditions,

Mortar screed: FloArm Cempo 10 - 2.2 kg/m²/mm - 22.2 kg/m² for a 10 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.)

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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:

- Always ensure good ventilation when using FloArm Cempo 10 in a confined space to remove excess moisture.
- Freshly applied FloArm Cempo 10 must be protected from damp, condensation and water for at least 48 hours.
- For external applications, apply primer and FloArm Cempo 10 on a falling temperature. 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.
- Under no circumstances add water to the mix.
- Floor cracks and joints require pre-treatment with MYK Under no circumstances add water to the mix.
- 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 10 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 10 must be fully broadcast with sand 0.4 - 0.7 mm

Curing Details:

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

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 10 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.

Chemical Resistance:

The FloArm Cempo 10 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.

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
Colour	Off white
Finish	Matt
Chemical Base	Epoxy Modified Cementitious self leveling.
Mixed Density	2.32 kg/l (at +27°C)
Pot life (For 30 kg mixing mass) Temperature (RH. 75%)	Time
+15°C	45minutes
+20°C	25 minutes
+30°C	15 minutes
Layer Thickness (If FloArmCempo 10 is used as a Temporary Moisture Barrier (TMB), a minimum of 10 mm must be applied)	10 mm min. / 100 mm max.
Thermal Expansion Coefficient (Temperature range 20°C to +60°C)(According to EN 1770)	Approx. 11.8×10^{-6} per °C
Water Vapour Diffusion Coefficient (μH_2O) (According to DIN 52 615)	Approx. 350, Equivalent Air layer depth for 30 mm thickness Sd 1.6m
Water Absorption Coefficient (According to DIN 52 617)	Approx. $0.02 \text{ kg/m}^2 \times h_{0.5}$
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/mm2
7 days	40 N/mm2
28 days	50 N/mm2
Flexural Strength 28 days (According to IS 9162 - 1979) (+30°C / 85 % r.h.)	7.5 N/mm2
Bond Strength 28 days (According to EN 13892-8) @+30°C and 50% r.h (100% concrete failure)	1.5 N/mm2
Abrasion Resistance (According to IS 1237 – 1980)	0.7mm thickness loss

Packaging

Available in 31.5 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

Use appropriate protective equipment's like hand gloves/
goggles etc during opening /mixing and application. Any
splashes should be washed off with water. If contact with
eyes occur, wash immediately with water and seek medical
advice.

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Product Categories Available



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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