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# TECHNICAL SPECIFICATION

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# COLOURED CONCRETE EBC THE «SHOT ME»

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#### PRODUCT DESCRIPTION

- The Coloured Concrete EBC by MERCADIER is a coloured (70 colours) decorative finishing mortar with a very fine grain. It is obtained by mixing powder and liquid resin.
- Its exceptional adhesion qualities on most surfaces even without a primer as well as its waterproof qualities make it an ideal material for implementation on floors, walls, counters, showers, exterior terraces etc.
- It is applied in several thin layers (1 to 2 mm) with the help of a trowel. This material can be used for renovations without preliminary heavy preparation work (1 mm for wall decoration/1.5 mm for floors and countertops/2 mm for tiles and showers).

### APPLICATION AREAS/SURFACES

- Interior/Exterior.
- Tiles and cement tiles.
- Cement.
- Plasterboard (BA13) waterproof or not.
- Plaster and gypsum blocks.
- Screeds and anhydrite screeds (after primer).
- Lightweight/aerated concrete.
- MDF, waterproof, marine plywood or laminate. NB: Such supports demand particular attention in terms of preparation (please, consult your distributor).
- Can be applied for areas in direct contact with water.
- NB: this product is not a waterproofing product in its pure meaning according to D.T.U. the French Building Code regulations. When used for showers, waterproofing must be performed beforehand with the help of a waterproofing system (Liquid Waterproofing System for example).
- The product can be used on hot-water powered floor heating and electric floor low-pressure and low-temperature heating.
- Other surfaces: please, contact us for assistance.

# NECESSARY TOOLS

- Balance, trapezoidal steel trowel, painting knife/spatula, stirrer (mounted on a drill), scrubbing or normal sponge and, if needed, sanding equipment (sandpaper 120).
- Gloves: it is recommended to put on gloves since the mixture can damage the skin (see security measures below) like many masonry/decorative products.
- Tools must be cleaned with water immediately after use.

### SURFACE PREPARATION AND PRIMERS

- The surface has to be resistant, non-friable, stable, dry and cohesive (1 MPa cohesion is necessary).
- The surface must be free of dust, clean, healthy and free of loose parts. It is essential to clean the surface from any traces of oil, grease, laitance etc.
- Scrape off paint, plaster, concrete laitance and traces of glue.
- Fill holes and cracks with a suitable product or our Coloured Concrete.
- If your surface is cracked or uneven, we recommend that you make a fiber patching beforehand (please, contact us) to level the surface. This will facilitate implementation and contribute to a more aesthetic rendering.
- Specifics by surface:

- **a)** Tiles: probe tile's cohesion, remove loosen tiles and fill in their spaces. After cleaning use the acetone or professional washing powder to remove fat remains and insure best possible adhesion. Then rinse and leave to dry.
- **b)** Anhydrite screed keep to technical specifications of screed manufactureres regarding drying of the surface and its moisture before covering.
- c) Hydraulic screed (cement...): wait for at least 28 days (according to D.T.U. the French Building Code regulations) before covering
- d) Adjuvant hydraulic screed (cement...): generally allows a faster coating, but refer to technical specification of a manufacturer before coating.
- e) New floor heating systems: carry out a preliminary heating (refer to technical specification of a manufacturer).
- f) Floor heating system (new or old): heating must be turned off 48 hours before product application.
- g) Room heating, turn off one day before product application.
- 'Ready to tile': Contact us for recommendations on this surface since some manufacturers have adapted their products to the realisation of decorative concrete: showers, washbasins etc.

However, these types of surface may present some inconveniences, namely:

- certain suppleness of the surface may persist despite the implementation of the Coloured Concrete EBC by 2mm: in this case further surface preparation will be necessary for the application of the Coloured Concrete EBC to retrieve hardness of the surface (otherwise there is a risk of cracks, delamination or punching). Besides, remain alert of falling objects since those may cause serious punctures;
- on certain surfaces of this type the boards of sluiceways designed for implementation with tiles are too high for application of Coloured Concrete. In this case it will be necessary to rebuild a slope for exactly 2 mm using a mortar suitable for support.

SUMMARY ON PRIMERS				
Concrete, cement	Moisten completely the day before and re-moisten just before application or use Textured Multi-Support Primer (primers allowing the best preservation of colours).			
Plaster tiles, aerated concrete	Textured All-Surface Primer followed by the 1st layer of Coloured Concrete EBC the day before.			
Plaster, anhydrite screed	Textured All-Surface Primer			
Plasterboard (BA13) waterproof or not	Acrylic Primer or Oil-based Paint			
Tiles & interior cement tiles	Textured All-Surface Primer (the use is optional depending on seams' depth and desired application comfort) + the 1st layer of Coloured Concrete EBC the day before.			
Exterior tiles	Textured All-Surface Primer. Then the first layer of 1 mm of Coloured Concrete EBC			
'Ready to Tile'	Contact us since depending on the brand it is necessary to use a primer or additional preparation.			
MDF, plywood, laminate etc.	Textured All-Surface Primer.			
Shower, washbasin and non-waterproof surface	Liquid Waterproof Primer MERCADIER can be used instead of preparation and other primers.			

# PREPARATION OF THE MIX « SHOT ME » (tintable base with our UCP syringes)

- A kit includes: a bucket of powder (component A) & 2 bags of binder (component B) and several UCPs («Ultra Concentrated Pigment») in syringes (sold separately).
- -These components should never be used separately. No other product (i.e. water ...) should be added and the proportions indicated below must be met.

The solidification time of the product, once mixed, is short (from 1 hour at 5 °C to only 30 min at 20 °C, for example)

- In a bucket mix component A (powder) and component B (binder) either completely (full kit) in the proportions indicated in the table below depending upon the surface to be covered.

### **Full Kit:**

Mix all the powder in the bucket with 2 packets of binder using an electric mixer until you obtain a homogeneous and lump-free paste.

Add the amount of Ultra Concentrated Pigment contained in the syringe according to the desired colour.

Mix again until you obtain a mixture of a uniform colour.

Repeat the procedure for subsequent layers.

#### Partial Kit:

Divide your kit into several equal parts depending on the surface to be covered or the number of layers to be done, based on the proportions indicated in the table below.

Mix the powder and the binder until you obtain a homogenous lump-free paste.

Add the amount of the Ultra Concentrated Pigment contained in the syringe according to the desired colour (Caution: the quantities of the Ultra Concentrated Pigment indicated in the colour chart correspond to the mix of a full kit: do not forget to equally divide this quantity according to the same proportions).

Mix again until you obtain a mixture of a uniform colour.

Repeat the procedure for subsequent layers.

#### Mix Overview:

		Mix Mercadier The «ShotMe»		
		Half	Full	One and a Half
		1	2	3
Numbe	r of bags with binder (500 ml)	+	+	+
		2.18	4.35	6.53
Powder	;, kg	+	+	+
	Intensity 1	1/8 of a syringe or 2.5 gradations	1/4 of a syringe or 5 gradations	3/8 of a syringe or 7.5 gradations
Colour	Intensity 2	1/4 of a syringe or 5 gradation	1/2 of a syringe or 10 gradations	3/4 of a syringe or 15 gradations
Col	Intensity 3	1/2 of a syringe or 10 gradations	1 syringe or 20 gradations	1.5 syringes or 30 gradations
	Intensity 4	1 syringe or 20 gradations	2 syringes or 40 gradations	3 syringes or 60 gradations
Surface in m <sup>2</sup> for 1 mm (one layer)		1.5	3.0	4.5

### APPLICATION

- Application temperature: 5 to 25°C.
- Avoid exposure to wind and sun at the moment of application and during the drying period. If indoors, close the shutters and fasten the windowpanes, and avoid the air currents.
- Attention, high humidity may cause an efflorescence phenomenon (appearance of brighter spots). If the temperature is too low (-10 °C) and/or if there is an excessive humidity, it is advisable to leave a heater on in a working room to avoid this.
- Keep to existing screed or slab expansion joints.

# 1. First Layer:

- Place a layer of an inferior thickness (about 1 mm) than the desired final layer using a stainless steel trowel. This layer brings along the material and will serve to grip the final layer. On tiles, this layer is essential and limits the spectrum phenomenon (seams).
- As soon as a fingerprint leaves no mark but the product is still fresh enough to be smoothed, slightly scrub this first coating with a slightly moistened sponge to flatten the surface. Warning: do not wet the surface, only smooth and flatten it, without tightening the grain. This procedure must be done very lightly, especially on dark colours, not to leave any traces. (Note: **Never** scrub the top layer risk of whitening).

# 2. Second Layer «Fresh into Fresh»

- Ideally the second layer should be applied "in fresh". Applying the second layer in fresh allows a greater application comfort and a smoother and more uniform rendering. Also, it will bring more hardness and will help 'close' the grain. With dark colours their lightening may occur.
- At this stage it is important to monitor well the hardening of the product. This depends on room temperature and application conditions but hardening usually occurs between 30 minutes and 1 hour after application. The perfect hardening time is when a finger leaves no footprint on the surface.
- The manner in which this layer is applied (movement of the trowel) contributes to the final output.
- Small crossed passes will give a more nuanced rendering and marble effect after 'closing' and sanding.
- Application with vast movements will give it a more uniform rendering.

- The total thickness of two layers should be 2 mm for countertops, showers and floors.
- If it's wall decoration, lower thickness might be accepted (1 mm in total).

You can also reach a total thickness of 6 mm not surpassing 3 mm per layer.

If it's wall decoration, lower thickness might be accepted (1 mm in total).

The product must be protected from moisture, frost, wind and sun during setting and hardening. Do not use any plastic film or watertight plastic that will impede product hardening in normal conditions.

# FINAL DRYING / SANDING

- Outdoors the coating can withstand rain 6 hours after application (at 20 °C) but it is preferable to protect it.
- The day after the application, the product must be sanded (grain between 80 and 150) to soften and 'close' the grain. Sanding can be done:
  - a) manually: rendering will be more uniform;
  - b) mechanically: the procedure will be faster but rendering will be more nuanced.
- Sanding provides a softer, smoother result. It also intensifies the effects of materials. Take it into account if a more uniform rendering is desired.
- In case of floor implementation you should ideally walk in socks.
- Restart the heating (floor or room heating) gradually 48 hours after application. This must be done before the use of sealers
- The coating will reach its highest resistant capacity in 28 days.

# FINISH / PROTECTION AND TREATMENT

- It is obligatory to treat the surface with one of our finishing products.
- The treatment is chosen according to the use of the place (refer to sealers overview, contact us) and contributes to the lifespan of the product.
- 5 days later, at 20 °C if you use an Impregnator sealer + Sealing Varnish.
- Outdoors the colours may slightly change with time.
- The maximum hardness of layered polished concrete is reached 28 days after the sealer sets.
- Regular maintenance is necessary. Its frequency is varied depending on how the area is used and also on a selected sealer. To preserve the product and its sealer, it is recommended:

To place the felt pads under the legs of the furniture, chairs etc.

Not to leave any coloured water spots or grease stains (wipe them out as soon as possible).

To clean surfaces with a shampoo MERCADIER.

#### COVERAGE & PACKAGING & STORAGE

- Coverage: a little over 2 kg/m²/mm
- The kit includes: a bucket of powder and a can of liquid.

Formats: Shot 5.35 kg (or 1.3 m<sup>2</sup> for 2 mm of thickness or 1.7 m<sup>2</sup> for 1.5 mm or 2.6 m<sup>2</sup> for 1 mm)

- The product can be kept for 1 year in its original unopened packaging in a place protected from moisture.

# **MECANICAL PROPERTIES**

The CEBTP-Solen (Experimental Centre for Research and Studies of Building and State Construction - Laboratory Materials) has tested our products according to current standards, and has evaluated the technical capabilities of our products on the following criteria: adhesion / compression resistance / abrasion (TABER) / punching (ZWICK), report No. BMA1-7-4142:

- **Adhesion test** consists in verifying the tear strength of the product relative to its support. Traction is performed 35 days after application of the product.
- Flexion resistance test/compression determines the weight limit before fracture of the material in flexion and in crushing.
- Abrasion test determines the resistance to wear by friction and is carried out 28 days after product application.
- **Punching test** determines the resistance to punching and consequently the average lifespan of the product.

Examples of Mechanical Resistance according to the French standard NF 196.1 (values given for information only after 28 days):

	Grey Base	White Base
Compression	34 to 50 MPa	45 to 55 MPa
Flexion	10 to 13 MPa	10 to 16 MPa

#### **TIPS**

- In hot weather the night before application store the liquid of the working materials in the refrigerator in order to slightly extend application time, and store the powder in a cool place.
- If you work on a wall or a vertical surface, proceed from bottom to top with crossing movements for the first layer and from top to bottom for the second layer.
- Use masking adhesive tape (scotch) to clearly outline the area to be coated. Caution: remember to remove the tape before the complete drying of the coating. Repeat for each layer.

# RELATED PRODUCTS MERCADIER

- Primers: Porous Surface Primer, Waterproofing Primer, Textured All-Surface Primer
- Sealers:
- \* Impregator Sealer + Mono Aqua Varnish,
- \* Impregator Sealer + Solvent-based Protector
- \* Impregator Sealer + Bicomponent Solvent-based Varnish

#### RECOMMENDATION AND WARNING

- See the most recent version of this technical specification (contact distributors). Our distributors are at your disposal for any clarification.
- Decorative coating such as layered polished concrete is the material with a 'continuous aspect', seamless and almost without fractionation. Having certain flexibility, they accept a slight surface deformation, but up to a certain extent. Thus, this decorative material is sensitive for surface movements (similarly to paint or any other decorative coating). If the surface suffers from substantial differential movements, decorative coating might become cracked despite any precaution measures taken while laying the product.
- Performance and durability guarantees for the decorative coating may be given only in case a complete system of MERCADIER products is used (primer, product itself, sealer) and strictly according to instructions for application and maintenance of the system. Thus, the manufacturer will not be liable for poor product's performance if an application did not conform to our instructions and if the integral system was not used.
- All the information, tips and advice relative to final illustration of MERCADIER products are given in good faith. They are based on knowledge and experience that MERCADIER has acquired so far regarding its products that were appropriately stored and handled, and applied in normal conditions. In practice, the differences between materials, surfaces and specific application conditions are such that provided information, written recommendations or given advice do not imply any warranty of merchantability other than the legal warranty against hidden defects.
- Colours and aspects in our color charts are indicative, and cannot be considered as contractual. The same is applied for boards and panels displayed at retail outlets. It is preferable to use identical samples as much as possible. These products lead to results with subtle differences that can also arise depending on application conditions (applicator's gestures, temperature etc).

# **SAFETY / PRECAUTIONS**

- R37/38: Irritating to respiratory system and skin. Wear suitable protection.
- R41: Risk of serious eye damage.
- S2: Keep out of children's reach.
- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S39: Wear eye and face protection.
- S46: If swallowed, immediately seek medical advice and show them a package or label.



In accordance with the new French regulations that establish limit value for the VOC (Volatile Organic Compound) present in constructions materials, this product MERCADIER respects the environment. This regulation states that construction and decoration products must be provided with a label indicating the level of volatile organic compound emission in a simple and readable way. We have the pleasure to confirm that this product is A+ (the lowest possible VOC emission value).