



NOVACEM CREATIVE

Cement-based binder for creating pebble coatings and terrazzo

- ▷ **Suitable for interior and exterior walls and floors**
 - ▷ **Suitable for permanent immersion in water**
 - ▷ **High mechanical strength**
 - ▷ **Excellent thixotropy and workability**
 - ▷ **High resistance to aging**
-

Description

NOVACEM CREATIVE is a mixture of high strength cement and special additives. When mixed on site with properly graded natural or synthetic aggregates, such as silica sand, marble or recycled glass granulates, it creates a unique textured or polished micro-pebble coatings, on horizontal or vertical surfaces, in very low thickness and high mechanical strength.

VOC emission classification GEV-Ecode EC1^{PLUS}, license number 11417/14.02.20

Uses

NOVACEM CREATIVE can be used in application such as:

- Textured, non-slip surfaces with natural optic
- Polished terrazzo surfaces

For horizontal and vertical applications:

- Exterior areas, landscape design, swimming pools, etc.
- Interior areas, bathrooms and wet areas
- Under floor heating floors
- In areas with heavy traffic, showrooms, commercial centers, public buildings, or offices
- Furniture, tables, offices, benches

For placement on various substrates such as:

- Concrete or screeds
- Existing coatings such as tiles, natural stones
- Mortars and masonry mortars
- Cement boards and gypsum boards (with a suitable primer)

Technical Data

Product Identity

Form	Powder
Color	White & Grey
Chemical substance	Portland cement, special additives
Bulk density	1,0 ± 0,1 kg/L
Storage	12 months on dry area in the original sealed packaging

Characteristics

Mixing ratio	13 – 18% depending on the addition rate		
Density of the mix	2,1 ± 0,1 kg/L		EN 1015-6
Dry density of the mix	2,0 ± 0,1 kg/L		EN 12190
Application temperature	from +5°C up to +35°C		
Workability	60 - 90 min / 20°C		
Application thickness	6 – 20 mm		
Walkability	2 – 3 hours		
Compressing strength	1d	≥ 15 N/mm ²	EN 196-1
	7d	≥ 35 N/mm ²	
	28d	≥ 45 N/mm ²	
Flexural strength	1d	≥ 3 N/mm ²	EN 196-1
	7d	≥ 7 N/mm ²	
	28d	≥ 8 N/mm ²	

NOVACEM CREATIVE 25%

Recommended water quantity 13 – 15 %

Final performance with 14% water/mix ratio*

Compressing strength	1d	≥ 10 N/mm ²	EN 1015-11
	7d	≥ 25 N/mm ²	
	28d	≥ 30 N/mm ²	
Flexural strength	1d	≥ 3 N/mm ²	EN 1015-11
	7d	≥ 5 N/mm ²	
	28d	≥ 6 N/mm ²	
Adhesion		≥ 1,7 N/mm ²	EN 1015-12
Chloride ion content	≤ 0,03 %		EN 1015-17

Capillary water absorption	$\leq 0,05 \text{ kg/m}^2 \sqrt{\text{h}}$	EN 1015-18
Water vapour permeability coefficient	$\mu \leq 20$	EN 1015-19
Thermal compatibility part 1:	$\geq 1,5 \text{ N/mm}^2$	EN 13687-1
Capillary Absorption	$\leq 0,21 \text{ kg/m}^2\sqrt{\text{h}}$	EN 13057
Reaction to fire	A1	EN 13501-1

* Received data with PLANOCOLOR GRANIT MQ 50 14 or MR 60 00, 20 - 23°C temperature, 60-65% RH without aeration. Values may vary depending on the aggregates and the specific conditions at the building site.

NOVACEM CREATIVE 30%

Recommended water quantity 14 – 16 %

Final performance with 15% water/mix ratio*

Compressing strength	1d	$\geq 15 \text{ N/mm}^2$	EN 13892-2
	7d	$\geq 33 \text{ N/mm}^2$	
	28d	$\geq 38 \text{ N/mm}^2$	
Flexural strength	1d	$\geq 3 \text{ N/mm}^2$	EN 13892-2
	7d	$\geq 5 \text{ N/mm}^2$	
	28d	$\geq 6 \text{ N/mm}^2$	
Adhesion		$\geq 2,2 \text{ N/mm}^2$	EN 13892-8
Chloride ion content		$\leq 0,03 \%$	EN 1015-17
Capillary water absorption		$\leq 0,05 \text{ kg/m}^2 \sqrt{\text{h}}$	EN 1015-18
Water vapour permeability coefficient		$\mu \leq 20$	EN 1015-19
Thermal compatibility part 1:		$\geq 2,2 \text{ N/mm}^2$	EN 13687-1
Capillary Absorption		$\leq 0,22 \text{ kg/m}^2\sqrt{\text{h}}$	EN 13057
Reaction to fire		A1	EN 13501-1

* Received data with PLANOCOLOR GRANIT MQ 50 14 or MR 60 00, 20 - 23°C temperature, 60-65% RH without aeration. Values may vary depending on the aggregates and the specific conditions at the building site.

NOVACEM CREATIVE 35%

Recommended water quantity 15 – 18 %

Final performance with 16,5% water/mix ratio*

Compressing strength	8h	$\geq 8 \text{ N/mm}^2$	
	1d	$\geq 18 \text{ N/mm}^2$	
	7d	$\geq 41 \text{ N/mm}^2$	EN 13892-2
	28d	$\geq 47 \text{ N/mm}^2$	
Flexural strength	8h	$\geq 2 \text{ N/mm}^2$	
	1d	$\geq 3 \text{ N/mm}^2$	
	7d	$\geq 5 \text{ N/mm}^2$	EN 13892-2
	28d	$\geq 6 \text{ N/mm}^2$	
Adhesion		$\geq 2,4 \text{ N/mm}^2$	EN 13892-8
Chloride ion content		$\leq 0,03 \%$	EN 1015-17
Capillary water absorption		$\leq 0,04 \text{ kg/m}^2 \sqrt{\text{h}}$	EN 1015-18
Water vapour permeability coefficient		$\mu \leq 20$	EN 1015-19
Adhesion after weathering cycles		$\geq 2,3 \text{ N/mm}^2$	EN 1015-21
Thermal conductivity mean $\lambda_{10,\text{dry,mat}}$ -values (W/m·K)		1,11 W/mK	EN 1745
Capillary absorption		$\leq 0,01 \text{ g/mm}^2$	EN 480-5
Capillary absorption		$\leq 0,22 \text{ kg/m}^2\sqrt{\text{h}}$	EN 13057
Chloride ion ingress		0,01%	EN 13396
Thermal compatibility part 1:		$\geq 2,2 \text{ N/mm}^2$	EN 13687-1
Wear resistance		A6 // A9 **	EN 13892-3
Reaction to fire		A1	EN 13501-1

* Received data with PLANOCOLOR GRANIT MQ 50 14 or MR 60 00, 20 - 23°C temperature, 60-65% RH without aeration. Values may vary depending on the aggregates and the specific conditions at the building site.

** A6 with addition of PLANOCOLOR GRANIT MR 50 14 and A9 with MR 60 00

Application Procedure

Substrate Preparation

The application substrate must be solid, clean, free of constant rising humidity, oils, grease, loose parts with minimum tensile strength at least 1,5N/mm². In case of existing cracks on the substrate, these should be repaired with the two-component injective epoxy resin adhesive EPO FLUID. Before applying the NOVACEM CREATIVE mortar wet the substrate with water and remove excess water using air or sponge. In wet areas or swimming pool applications it is recommended to waterproof the surface by using SC ELASTIC, SC 200 PENETRATE or SC ELASATIC EASY. Substrates with inadequate mechanical strength must be primed with NOVAPRIMER or WATER PRIMER EPX. For monolithic bonding with the substrate use EPO FLUID or the adhesive primer consisting of 1 part SBR 50, 1 part water and 4 parts NOVACEM CREATIVE and apply the mortar fresh to fresh in the adhesive layer. On surfaces with reduced absorbency such as old terrazzo, well-fixed ceramic tiles or marbles, pre-coating with PLANO CONTACT is recommended if they have been properly cleaned.

Preparation of the mix

Add the quantity of water required by the amount of NOVACEM CREATIVE powder in a suitable container. Proposed ratios are listed in the tables. Slowly and while stirring add the NOVACEM CREATIVE to water and then the granulates. Mix with an electric mixer for at least 3 minutes until you achieve complete homogenization of the mixture without agglomerates. The mixture is ready to use.

Application

Apply the mix with a flat spatula or trowel. Final smoothing can be done by using appropriate finishing tool such as a flat metallic trowel. The application thickness depends on the maximum grain dimension of the aggregates used, where the minimum thickness is 2-3 times the maximum grain size of the aggregates. When thicker coats are required, apply a second coat when the first does not stick to the hand.

The mix has a pot life of 1 hour. During hot periods and in general, it is recommended to avoid direct sunlight exposure of the materials before use, otherwise the working time is reduced.

Final surface with textured finish

After the mortar is leveling and within 30 minutes of application, spray the surface retarder PLANOCOLOR CRT 052. The cleaning of the surface is done by using high pressure water (100 to 180 bar), 12 to 24 hours after application, depending on environmental conditions, but in any case, within 3 days of application. In case of rain during the waiting period it is recommended to remove it without waiting.

Note: If during the removal of the material from the surface the aggregates are dormant, reduce the water pressure or wait a longer period of time.

Finishing surface with polished finish

If a polished finish is required, a suitable grinding machine must be used. For micro holes occurring during mechanical grinding, either from trapped air or from the removal of aggregates, use as a filler material, depending on the desired effect, one of the NOVACEM MF or PLANOFINISH CRYSTAL products.

In applications under difficult weather conditions, it is recommended 24 - 48 hours after the completion of the cleaning and depending on the type of application to use the mineral hardener/concrete densifier PLANOFINISH CH PLUS or PLANOFINISH CH. In case of floor applications, a protection with PROTECT 200, PROTECT 300S, PROTECT 900S or WET PLUS S in dependence of the requirements of the application is recommended. When NOVACEM CREATIVE is applied inside swimming pools the application of a varnish or surface protection is not recommended.

Expansions joints

Incorporating expansion joints depends on the use of the surface, geometry of space and the composition of the mixture. In any case there must not exist distance higher than 5 linear meters without expansion joint in exterior areas and 5 - 7 linear meters in interior. In swimming pool applications, it is recommended to anticipate expansion joints in the entire wall-to-wall and wall-to-floor connections of the swimming pool's structure as well as every 40 – 45 m² of the surface. All expansion joints must be covered with appropriate sealant.

Recommendations

- Apply in structural stable and well-prepared surface
- Do not add water or additives once the mix starts to set
- Do not apply upon existing expansion or movement joints of the substrate
- Do not mix NOVACEM CREATIVE with gypsum, cement, resins, latex, or other binders
- Do not apply upon deformable substrates, surfaces subjected to vibration
- Do not apply upon non-absorbent substrates such as metal, glass, old ceramic tiles and mosaics without applying appropriate primer
- Permanent water immersion after 7-10 days
- In general case where specific color is required it is recommended to mix with NOVACOLOR OXIDE or NOVACOLOR UNIVERSAL in appropriate proportions
- Do not apply when temperature of the substrate and environment is lower than +5°C and higher than +35°C
- Application must be done by professional applicator

Consumption

The consumption of NOVACEM CREATIVE depends on the composition of the mixture each time and can be between 0,50-0,70 kg/m²/mm of thickness.

Cleaning

Tools used during the preparation and application can be cleaned with water while NOVACEM CREATIVE is still fresh. If hardening occurs, cleaning can be done only by mechanical means.

Storage

NOVACEM CREATIVE remains stable for 12 months from production date inside its original sealed packaging, stored in protected dry area in temperature between +5°C and +35°C.

Packaging

Multi-layer paper bags of 15 kg.

Safety Instructions

For information and instructions regarding disposal and safe handling, users should refer to the latest Safety Data Sheet of the product containing ecological, toxicological and other safety related data.

Legal notes

The technical data and recommendations contained or listed in this leaflet are the result of laboratory measurements, of our current knowledge and experience. All the above-mentioned information and specifications should in any case be considered as indicative, as they may differ from each other. The Company makes every effort to ensure the accuracy of the information provided herein. Product specifications, prices and availability are subject to change without notice and may differ from those shown.

In practice, variations in materials, substrates and on-site implementation conditions are such that no warranty can be given or implied as to the merchantability or suitability of the materials for a particular purpose and for the exact conditions of each project. Anyone interested of using the product must be sure beforehand that the product is suitable for the intended use and in any case, the user is solely responsible for any consequences due to the use of the product. Among other things, the Company is not responsible for any normal wear or tear from environmental or other inappropriate conditions. We reserve the right to revise or change the data herein without prior notice.

Restrictions and disclaimers apply to the extent permitted by applicable law. The Company has a Technical Support Department, which is the only one responsible for providing technical advice and solutions to deal with problems. Requests to the Technical Support Department are addressed and answered, only in writing.

For the latest and valid version of the Technical Data Sheet, the user of the material must refer to our website www.novamix.gr or directly to the QR Code of the product.



DOMOCHEMICAL S.A.
40 Papanikoli str.
Chalandri, 15232, Athens
T +30 210 68 93 953
F +30 210 68 94 571
novamix@novamix.gr