



WATERPROOF LEVELLING MORTAR WITH DECORATIVE TEXTURE FOR FINISH AND PROTECTION OF CONCRETE AND MASONRY FROM WATER AND MARINE ENVIRONMENT

DESCRIPTION

CONCRESEAL® PLASTERING is a mixture of cements, carefully controlled silica aggregates and special additives, designed for waterproofing, levelling, protection and decoration of concrete and masonry in one single layer with thickness between 3 and 5 mm.

APPLICATION FIELDS

- Decorative and protective coating with minimum thickness on façades, pre-cast elements, concrete, brick walls, etc, exposed to weathering and freeze-thaw cycles.
- On concrete block partitions, it fulfils three functions: levelling joints, waterproofing and decorative finish in a single layer application.
- Protection and decorative finish on waterproofing coatings such as MAXSEAL® and MAXSEAL® FLEX (Technical Bulletin n° 1 and n° 29 respectively) subject to impacts, damages and abrasion by water flow, such as water treatments plants, dams, swimming pools, water channels, tunnel lining, etc.
- Levelling, finish and protection of structural repairs in façades and residential buildings, exposed to marine environment.
- Finish and protective layer on below grade waterproofing works subject to negative water pressure, such as garages, basements, tunnels, galleries, sub-ways, etc.

ADVANTAGES

- Adds aesthetic uniformity maintaining architectural details of fluting, vertical lines, decorative mouldings, etc.
- It fills and seals holes, voids and honeycombs. Once sets, it becomes part of the substrate.
- Avoid deterioration of the substrate due to the penetration of water and aggressive particles.
- Suitable for contact with drinking water.
- Very good adhesion on substrate.
- High abrasion resistance.
- Long lasting, maintenance-free. Provides a durable waterproofing finish.
- Easy to apply, it can be even sprayed.

APPLICATION INSTRUCTIONS

Surface preparation

Remove damaged areas, low strength renders, unsound mortars or any loose particles to expose a structurally resistant substrate. Surface must be clean and free of paint, efflorescence, greases, oil, foreign materials, dust, de-moulding agents, curing agents or any particle which could affect the adhesion. Clean surface by scrubbing with a wire brush, sandblasting or water blasting.

All cracks and fissures must be opened up at least 2 cm in depth and filled with a structural repair mortar such as MAXREST® (Technical Bulletin n° 02). Honeycombs, voids or gravel pocket should be patched with MAXREST® too. If superficial non-structural steel elements are present, concrete around them must be removed and the steel elements cut to a depth of 2 cm. Finally, patch the opened area with MAXREST®.

Expose all structural reinforcement affected by corrosion, removing all concrete around them at a depth of 2 cm.



Technical information



Clean reinforcements of rust or scale and then, coat them with the oxide converter and anti-corrosion protection MAXREST® PASSIVE (Technical Bulletin n° 12).

Mixing

Trowel application. A 25 kg bag of CONCRESEAL® PLASTERING requires 1 litre of MAXCRYL® and 3,5 – 4 l of water, depending on the consistency required and application temperature. Mixing is best done by mechanical means such as a slow speed mixing drill (400-600 rpm). Small quantities can be mixed by hand. Mix until a workable mortar free of lumps is achieved.

Spray application. A 25 kg bag of CONCRESEAL® PLASTERING requires 2 litres of MAXCRYL® and 4,5 litres of water. This quantity is indicative and can be slightly modified depending on consistency required, application temperature and type of pump. Use a mechanical mean for mixing as above mentioned.

Application

Trowel application: Once repaired, the entire surface to be coated should be thoroughly saturated but do not leave free-standing water before application. Then, using a trowel make sure CONCRESEAL® PLASTERING is firmly pressed into all voids and applied in layers of thickness between 3 to 5 mm. When CONCRESEAL® PLASTERING starts to set (from 20 to 30 min, depending on ambient conditions), surface can be finished with a sponge, wood, plastic float or trowel, depending on the desired texture. A solution of one part of MAXCRYL® and three parts of clean water must be used to wet the sponge in the final process of finishing. Do not use only water.

Spray application: Previously, dampen completely the surface but do not leave free standing water and proceed to fill with CONCRESEAL® PLASTERING by trowel the voids, holes or big honeycombs deeper than 5 mm. Then, spray one layer of CONCRESEAL® PLASTERING with thickness between 3 to 5 mm and covering areas from 6 to 8 m². Once it sets, additional layers can be sprayed as needed to achieve a desired higher thickness or provide a uniform texture, maintaining the same distance from the surface.

If a colour finish is required, coat with MAXSHEEN (Technical bulletin n° 17) or MAXSHEEN® ELASTIC (Technical Bulletin n° 142) with either smooth or texture finish.

For negative water pressure or water immersion conditions, MAXSEAL® or MAXSEAL® FLEX should be used previously as waterproof coatings and after 7 days of curing time, apply CONCRESEAL® PLASTERING as finish. In order to achieve the suitable adhesion on a close porous surface as MAXSEAL® FLEX, a dilution of 2 parts of MAXCRYL® and 1 part of water must be used to mix CONCRESEAL® PLASTERING. To prevent shadowing on deep masonry joints or areas with unequal absorption, apply one coat of MAXSEAL® with MAXCRYL® in order to obtain a more regular and homogeneous surface, wait for 7 days of curing and proceed to apply CONCRESEAL® PLASTERING.

Do not apply CONCRESEAL® PLASTERING below 5 °C or if such temperatures or rainfall is expected within 24 hours after application. Do not apply on frozen or frosted surfaces. For applications with hot temperatures (> 25 °C) and wind, i.e. summer time, the surface must be dampening with plenty of water.



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Curing

For a better curing with hot temperatures (> 25 °C), apply a fine mist water spray at least the first hours after placing CONCRESEAL® PLASTERING. Allow the coating to cure at least for 7 days at 20 °C and 50% R.H. before water immersion. Lower temperatures and higher relative humidity increase the curing time.

Cleaning

All tools and equipments should be cleaned immediately with water after use. Once it hardens, product can only be removed by mechanical means.

CONSUMPTION

Approximate consumption is 1,7 kg/m² per mm. thickness. This estimated consumption varies depending on roughness, substrate porosity and application method. A preliminary test on-site will determine consumption exactly.

IMPORTANT INDICATIONS

- When coating over existing renders, compatibility, soundness and adhesion testing on the substrate must be done.
- Do not use leftovers from previous mixes.
- Do not add cement, aggregates or other compound to CONCRESEAL® PLASTERING.
- Do not exceed the mixing ratio recommended.
- Do not use a high speed mixing drill or over-mix.
- For further information, consult our Technical Department.

PACKAGING

CONCRESEAL® PLASTERING is supplied in 25 kg bags. It is available in white and pearl grey colour.

STORAGE

Twelve months in its original unopened packaging. It must be stored in a dry and covered place, protected from humidity and freezing, at temperatures above 5 °C.

SAFETY AND HEALTH

CONCRESEAL® PLASTERING is an abrasive product, so both rubber gloves and safety goggles must be used to prepare and apply the mixture. In case of eye contact, rinse thoroughly with abundant clean water, but do not rub. In case of skin contact, wash affected areas with soap and water. If irritation persists, seek medical attention. For further information, Safety Data Sheet of CONCRESEAL® PLASTERING is available by request.

Disposal of the product and its empty packaging must be made by the final user and according to official regulations.



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TECHNICAL DATA

Density hardened material (Kg/dm ³)	2,02±0,05		
Maximum size of aggregate (mm)	0,8		
Capillarity coefficient, C (g/dm ² .min 1/ 2) Capillarity water absorption (%)	0,10 0,55		
Dynamic modulus of elasticity (Kp/cm ²) ASTM C-215	245.000		
Mechanical resistance (Kp/cm ²) 7 days 28 days	Flexural	Compression	
	53 64	242 310	
Abrasion resistance Test conducted on dry material using silica sand as an abrasive agent	LENGTH / METERS	WEIGHT APPLIED Kg /cm ²	WEAR in mm
	500	0,51	9,4 ± 0,5
	500	0,21	4,5 ± 0,5
	1000	0,21	10,0 ± 0,5
Adhesion (Kp /cm ²) 7 days 28 days	Pull-off		Splitting
	Rough Con-crete	Rough concrete /Maxseal	Smooth concrete
	8,4	-	-
	9,4	8,1	8,0
Accelerated aging test.	After the test, the product did not crack, come away or show any noticeable changes in colour.		
Suitability for contact with drinking water	Approved		
Impact resistance 1 kg steel ball	Height (m)	Impact Energy (Julios)	Diameter of damage (cm)
	1,0	9,8	1,33
	1,5	14,7	1,41
	1,8	17,6	1,60



Technical information

CONCRESEAL ® PLASTERING



Disclaimer:

The general information provided in the present technical description, application guidelines and other recommendations, is based on research and experience. However the client is obliged to determine himself what products are suitable for use. Accordingly, no liability will be accepted by IBC.

For further information contact the IBC Technical Department.



Technical information

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