



CONCRESEAL®

TOP (-F / -P / -R)



SINGLE LAYER MORTAR FOR FAÇADE COATING



DESCRIPTION

CONCRESEAL® TOP is a cement-based mortar for single-layer, waterproof, coloured plaster with high adhesion for the protection and decoration of façades. Available in three versions depending on the desired finish:

- **CONCRESEAL® TOP – P:** Pebble dash / Spar finish.
- **CONCRESEAL® TOP – R:** Scraped / Stucco finish.
- **CONCRESEAL® TOP – F:** Sponge float finish.

USES

- Waterproof and decorative finish of façades and exterior walls.

ADVANTAGES

- Waterproof to rain and permeable to water vapour.
- Good adhesion over traditional substrates, such as brick, concrete blocks, concrete or cement renders.

- Economical. Provides important savings in man hours and materials when compared with the usual render plus paint solution.
- Its industrialised manufacturing guarantees stable colour, waterproofing and mechanical characteristics, assuring constant quality.
- Allows endless possibilities for the craftsman for modulating or piecing of the façade, improving its final appearance.

APPLICATION INSTRUCTIONS

Preparation of the surface

The substrate must be sound and firm to ensure its stability against the effects of shrinkage, movement, etc. It must also be rough and sound, with no poorly adhered parts or surface grouting. It must also be clean and free of paint, efflorescence, loose particles, grease, release oils, dust, plaster, etc., or other substances that could affect the adhesion of the product. If the surface has previously been coated with lime, plaster or acrylic treatments, etc., these must be removed, leaving only the strongly adhered remains. Use sandblasting or high-pressure water to clean and prepare the substrate. When the surface is very smooth, it is advisable to give it a certain roughness by chipping or scraping it in order to improve adhesion. A bonding agent such as **MAXBOND®** (Technical Bulletin No. 10) can also be used.

It is desirable to have an even surface, removing excesses, filling in voids and cracks, by spreading a levelling layer, in order to avoid excessive thickness, which apart from uneconomical, may present cracking due to retraction or shades in colour. All holes and cracks without movement, once opened and exposed to a minimum depth of 2 cm, must be repaired with **MAXREST®** (Technical Bulletin No. 2) structural repair mortar.

The surface to be coated must not be too dry. With hot weather or if the substrate is very absorbent, dampen prior to application without leaving excess water and wait until it is absorbed.

Modulation of the façade. Place on the surface wood, aluminium or PVC battens. These will perform the double job of guides for the placing and levelling of the mortar, and will provide, once they are removed, the modulation of the façade. Apply a strip of **CONCRESEAL® TOP** of no less than 5 mm thick, and before the product hardens, place and level the battens previously cut to the length required.

Application in critical areas. It is advisable to reinforce **CONCRESEAL® TOP** in all structural joints, joints between different construction materials such as concrete-brick, lintels, decks, boxes for venetian blinds, rounded shapes, etc., to prevent cracking caused by tensions in these areas.

For this purpose, apply a layer of **CONCRESEAL® TOP** approximately half the final thickness and place while fresh a glass fibre mesh **DRIZORO® MESH 130** (Technical Bulletin No. 210) of 10 x 10 mm. The mesh should cover at least 20 cm on either side of the critical area to be covered.

Mixing and application

The mixing can be done either by hand or mechanically in order to obtain better homogeneity. Keep a constant proportion of water per bag. Not following this rule may cause differences in colour on the coated surface. Mix with the quantities of clean water per 25 kg bag shown in the table below.

	Manually	Mechanically
CONCRESEAL® TOP - P	7,0 – 8,0 l	6,5 – 7,5 l
CONCRESEAL® TOP - R	5,0 – 6,0 l	4,5 – 5,5 l
CONCRESEAL® TOP - F	4,5 – 5,5 l	4,0 – 5,0 l

Pour the required amount of water into a clean container and add **CONCRESEAL® TOP** gradually, mixing by hand or, preferably, with a low-speed electric drill (400-600 rpm) fitted with a mixing paddle for approximately 4 to 5 minutes until a homogeneous mixture is obtained, free of lumps

and air bubbles and with a semi-dry consistency. Mix for 5 minutes until obtaining a homogeneous mortar. Allow to settle for 10 minutes and apply manually with a trowel or spray with an appropriate machine.

Once mixed the time available for placing and levelling is approximately one hour.

Application

CONCRESEAL® TOP -P. Spread the mortar over the substrate in a thickness between 10 and 12 mm. Level and smooth it. Between 10 and 30 minutes later, spray the marble chips over the mortar. When it starts to harden, flatten the surface with a trowel.

CONCRESEAL® TOP -R. Spread the mortar over the substrate in a thickness between 10 to 15 mm. Level and smooth it. When the mortar starts to harden (between 3 and 12 hours depending on the atmospheric conditions), it is scraped with a scraping trowel, wire brush, saw blade, etc. Once the mortar is dry it is brushed to remove dust and loose particles.

CONCRESEAL® TOP -F. Spread the mortar over the substrate in a thickness between 10 to 15 mm. Level and smooth it. When the mortar starts to harden (between 1 and 3 hours, depending on the atmospheric conditions) it is finished with a sponge, wood or plastic float, etc.

Application conditions

Avoid outdoor applications if rain and/or contact with water, humidity, condensation, dew, etc. is expected within 24 hours of application.

The optimum application temperature range is 10°C to 30°C. Do not apply when the substrate and/or ambient temperature is below 5°C or if temperatures are expected to fall below this level within 24 hours of application. Similarly, do not apply to frozen or waterlogged surfaces.

As a preventive measure, do not dampen the surface excessively in cold environmental conditions.

In applications at high temperatures, strong wind and/or low relative humidity, dampen the substrate thoroughly with water. Avoid direct exposure to the sun in extreme heat.

Curing

A curing period of at least 7 days is estimated under ambient conditions of 20°C and 50 % relative humidity. Lower temperatures may prolong the curing time and delay the putting into service of the coated surface.

Low temperatures, frost, rain and/or very humid environments may cause carbonation processes on the surface of **CONCRESEAL® TOP**, which manifest as lighter-coloured salt stains that appear between

the second and tenth day after application. If this occurs, you can try to remove them by washing with acidulated water (one part hydrochloric acid to ten parts water), then rinsing thoroughly with clean water.

When applying at high temperatures, in strong winds and/or low relative humidity, to prevent **CONCRESEAL® TOP** from drying out too quickly, spray it with water, without washing it off, at the end of the working day and within 24 hours of application. Do not apply curing agents.

Cleaning

All tools must be cleaned with water after use. Once it cures can only be removed by mechanical methods.

CONSUMPTION

The estimated consumption of **CONCRESEAL® TOP** is 1,3 to 1,5 kg/m² per mm of thickness, depending on the version used.

Consumption may vary depending on the texture, porosity and condition of the substrate, as well as the application method. Test on site to determine the exact value.

IMPORTANT INDICATIONS

- Do not add cement, additives or aggregates that may affect the properties of the product.
- Respect the indicated mixing water proportions. If not, colour differences may occur on the coated surface.
- Allow at least 28 days curing time for new concrete and mortar before application.
- Respect the recommended minimum and maximum consumption and thicknesses.
- Do not apply to water-repellent substrates, bituminous materials, metal, wood, plaster or paint.
- Do not use leftovers from previous mixes to make a new batch.
- Differences in the mixing water to powder ratio, degree of absorption and irregularities in the substrate, as well as application and curing conditions, may result in slight differences in colour intensity.
- For any application not specified in this Technical Bulletin, additional information or queries, please consult the Technical Department.

PACKAGING

CONCRESEAL® TOP is supplied in 25 kg bags. Available in eight standard colours according to the colour chart.

Aggregates are also supplied in different colours for the **CONCRESEAL® TOP -P** version.

STORAGE

Twelve months in its original unopened packaging, in a cool, dry and covered place protected from humidity, frost and direct sunlight, at temperatures higher than 5°C.

SAFETY AND HEALTH

CONCRESEAL® TOP is not a toxic product but it is abrasive in composition. Avoid contact with skin and eyes, as well as inhalation of dust. Wear gloves and safety goggles when handling, mixing and applying the product. In case of contact with skin, wash the affected area with soap and water. In case of splashes or contact with the eyes, wash with plenty of clean water without rubbing. If irritation persists, seek medical attention.

Safety Data Sheet of **CONCRESEAL® TOP** is available by request.

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

TECHNICAL DATA

Product characteristics			
CE Marking, EN 998-1			
Description: Industrial mortar for single-layer plastering. OC			
Intended uses: Walls, ceilings, columns and partitions in exterior constructions.			
Mortar version	TOP -F Sponge float	TOP -P Pebble dash	TOP -R Stucco
General appearance and colour	Pigmented powder		
Maximum particle size, (mm)	1,2	1,0	1,2
Density of powder mortar, (g/cm ³)	1,45±0,10	1,15±0,10	1,6±0,10
Mixing water, (% by weight)	20 ± 2	28 ± 2	20 ± 2
Fresh mortar density, (g/cm ³)	1,8±0,1	1,6±0,1	1,75±0,1
Thixotropy	Good	Good	Good
Application and curing conditions			
Application temperature for substrate and ambient, (°C)	5 – 35		
Pot life at 20°C y 50 % H.R., (min)	60	60	60
Minimum-maximum drying time for finish at 20°C and 50 % R.H.	1 - 3 h	10–30 min	3 – 15 h
Full curing time at 20°C and 50 % RH, (d)	7	7	7
Cured product characteristics			
Apparent density of cured and dry mortar, EN 1015-10 (g/cm ³)	1,65±0,10	1,45±0,10	1,6±0,10
Retraction after 28 days, (‰)	1,1	1,1	0,3
Flexural strength at 28 days, (MPa)	4,3	3,4	4,1
Compressive strength at 28 days, EN 1015-11 (MPa - Category)	11,9 CS IV	8,0 CS IV	10,5 CS IV
Adhesion, EN 1015-12 (N/mm ² -FP)	4,8 – A,B	6,7 – A,B	7,4 – A,B
Adhesion after climatic cycles and breakage form, EN 1015-21 (N/mm ² -FP)	>0,5 – A,B	>0,5 – A,B	>0,5 – A,B
Water absorption by capillary action, EN 1015-18 (Category)	W 2	W 2	W 2
Water permeability after climatic cycles, EN 1015-21 (ml/cm ² , 48 h)	≤ 1	≤ 1	≤ 1
Water vapour permeability, EN 1015-19, (g/m ² ·h·mm de Hg)	0,49±0,05	0,50±0,05	0,47±0,05
- Permeability coefficient (μ)	≤ 35	≤ 35	≤ 35
Capillary coefficient C, (g/dm ² ·m ^{1/2})	1,0	1,1	0,9
Reaction to fire, EN 13501-1 (Class)	A1	A1	A1
Consumption * / Thickness			
Minimum-maximum thickness per layer, (mm)	10-15	10-12	10-15
Consumption, (kg/m ² ·mm)	1,5	1,25	1,4

*Consumption may vary depending on substrate's characteristics and application method. Test on site before application in order to find out exact consumption

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. **DRIZORO®**, S.A. reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.