



# CONCRESEAL<sup>®</sup>

## -5

### LEVELLING AND REPAIR MORTAR FOR COSMETIC RESTORATION OF MORTARS AND ARCHITECTURAL CONCRETE UP TO 5 mm

#### DESCRIPTION

**CONCRESEAL<sup>®</sup>-5** is a polymer-modified and cement-based single component mortar. It is specially designed for both superficial cosmetic repair and levelling of renders and concrete surfaces in very thin layers and feather edging, with a maximum thickness up to 5 mm. Meets Class R3 according to European Standard EN-1504-3.

#### APPLICATION FIELDS

- Restoration and levelling of deteriorated surfaces in concrete and prefabricated elements: damages produced for de-moulding, breaks in the edges, small fissures, filling of honeycombs and small voids, gravel pockets, plasters, etc.
- Restoration on masonry and bricks.
- As base for fixing of isolation boards over concrete, screeds and masonry.
- Protective coating on concrete and mortars against abrasion and mechanical damages.

#### ADVANTAGES

- Good adhesion on all cement based surfaces. No primer or bonding agent is required
- Final finish for the surface is similar to the original concrete.
- Good thixotropic behaviour. It can be used on vertical or horizontal substrates.
- It is odourless, non-toxic.
- It is water and weather resistant.
- Only requires water for mixing.
- It can be waterproofed and decorated with acrylic coating such as **MAXSHEEN<sup>®</sup>** or **MAXSHEEN<sup>®</sup> ELASTIC**

#### APPLICATION INSTRUCTIONS

##### Surface preparation

The substrate to be repaired or levelled must be sound, clean and free from dirt, remains of paints, gypsum, efflorescence, as well as form de-moulding agents, curing agents or any product, which could affect the adhesion. Dampen the surface to be repaired thoroughly with clean water in order to saturate it before applying **CONCRESEAL<sup>®</sup>-5**, but leave no free standing water.

Before the application of **CONCRESEAL<sup>®</sup>-5**, all cracks and fissures must be opened up at least 2 cm in depth and filled with any repair mortar. In case of superficial non-structural steel elements are present, concrete around must be removed and the steel elements cut to a depth of 2 cm and finally, the opened area must be patched or repaired. For an efficient treatment, expose all structural reinforcement affected by corrosion, removing all concrete around them at a depth of 2 cm. These reinforcements should be cleaned of rust and scale and then, coated with **MAXREST<sup>®</sup> PASSIVE** (see Technical Bulletin n° 12) oxide converter and anti-corrosive protection. In order to fill the area, repair mortars such as **MAXREST<sup>®</sup>**, **MAXRITE<sup>®</sup> 500** or **MAXRITE<sup>®</sup> 700** (see Technical Bulletin n° 4, 50 and 51, respectively) are recommended.

##### Mixing

Pour clean fresh water in a container and gradually add **CONCRESEAL<sup>®</sup>-5**. A 25 kg bag requires from 4 to 5 litres of water. Mix until a homogeneous -free of lumps-thick mortar is achieved.

Mix the amount of **CONCRESEAL<sup>®</sup>-5** that can be applied within 40 minutes. Mixing is best done by mechanical means such as a

slow speed mixing drill (400 - 600 rpm) or manually. Allow the mixture to rest for two to three minutes and then, remix briefly prior to application.

If **CONCRESEAL®-5** loses its workability during its application, remix it again but do not add water.

### Application

**CONCRESEAL®-5** must be applied by trowel. For large areas, it can be applied also by spray equipment. The recommended application are layers with maximum thickness up to 5 mm.

If it is required, when **CONCRESEAL®-5** starts to set (from 1 to 3 hours, depending on ambient conditions) the surface can be finished with a sponge, wood or plastic float.

### Application conditions

The optimum temperature range for application is from 10 to 25 °C.

In winter, do not apply **CONCRESEAL®-5** below 5 °C or if such temperatures are expected within 24 hours after the application. Do not apply the mortar on frozen or frosted surfaces.

Do not apply **CONCRESEAL®-5**, if rain is expected within 8-12 h after the application.

For applications with hot temperatures and windy condition, i.e. summer time, the surface must be dampen with plenty of water

### Curing

For a better curing, apply a fine mist water spray within 2 hours after placing **CONCRESEAL®-5**.

### Cleaning

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

### CONSUMPTION

Estimated consumption for **CONCRESEAL® -5** is 1,5 kg/m<sup>2</sup>·mm thickness.

This consumption is for guidance only and may vary depending on porosity, texture, substrate conditions and application method.

Perform a preliminary test on-site to ascertain the total consumption exactly under.

### IMPORTANT INDICATIONS

- Allow new concrete and mortars a curing time of 28 days before application.
- Do not add cements, additives, aggregates or other compounds.
- Use the recommended mixing ratios.
- Do not use leftovers from previous mixes.
- To keep the workability, remix the fresh mortar but never add more water. Do not mix more material than can be used within 40 minutes.
- Do not apply in thickness higher than 3 mm per layer.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

### PACKAGING

**CONCRESEAL®-5** is supplied in 25 kg bags. It is available in grey and white colour

### STORAGE

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

### SAFETY AND HEALTH

**CONCRESEAL® -5** is not a toxic product but is an abrasive composition. Avoid direct contact with skin and eyes, and breathing dust. Use rubber gloves and safety goggles during application. In case of skin contact, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rub. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for **CONCRESEAL® -5**.

Disposal of the product and its packaging should be carried out according to the current official regulations and it is the responsibility of the final user of the product..

## TECHNICAL DATA

<b>Product characteristics</b>	
<i>CE Marking, EN 1504-3</i> Description. Non-structural repair mortar for concrete structures in building and civil engineering works. Type PCC and Class R3. Principles / Methods. Concrete restoration by applying mortar by hand (Principle 3CR/3.1)	
General appearance and colour	White or grey powder
Maximum aggregate size, (mm)	0,5
Mixing water, (% by weight)	18 ± 2
<b>Application and curing conditions</b>	
Minimum application temperature for substrate and ambient, (°C)	> 5
Pot life at 20 °C & 50 % R.H., (min)	40 – 45
Initial / Final setting time at 20 °C & 50 % R.H., (h)	2 – 3 / 4 – 5
Curing time at 20 °C & 50 % R.H., (d)	7
<b>Cured product characteristics</b>	
Density for cured and dry mortar, EN 1015-10 (g/cm <sup>3</sup> )	1,8 ± 0,1
Requirement for repair products, EN 1504-5 (Class)	Class R3
Compressive strength at 28 days, EN 12190 (MPa)	> 25 (34,7)
Flexural strength at 28 days, EN 1015-11 (MPa)	6,0
Chloride ion content, EN 1015-17 (% by weight)	≤ 0,05
Adhesion on concrete at 28 days, EN 1542 (MPa)	≥ 0,8 (2,0)
Elastic modulus, EN13412 (GPa)	> 10,0 (15,6)
Thermal compatibility. Bond strength after 50 cycles (MPa)	
Part 1. Freeze-thaw, EN 13687-1	≥ 0,8 (2,7)
Part 2. Thunder shower, EN 13687-2	≥ 0,8 (3,1)
Part 4. Dry cycling, EN 13687-4	≥ 0,8 (2,1)
Abrasion resistance. Taber abrasion Test. ASTM D-4060	
Weight loss (g)/Wear Index	
H-22 Wheel, 1 kg load and 500 cycles	2,2/4,4
H-22 Wheel, 1 kg load and 1000 cycles	4,7/4,7
Capillary absorption, EN 13057. w (kg/m <sup>2</sup> ·h <sup>0,5</sup> )	≤ 0,5 (0,1)
Reaction to fire, EN 13501-1 (Class)	A1
<b>Thickness / Consumption</b>	
Thickness per layer (mm)	1 – 5
Consumption (kg/m <sup>2</sup> ·mm thickness)	1,5

## 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.U.**, 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.



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ISO 9001  
ISO 14001

**BUREAU VERITAS**  
Certification



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