



## WATERPROOFING OF BALCONIES AND TERRACES

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## The weather resistant – durable RD - Coatings terrace sealing system

### DEFINITION OF THE PROBLEM:



It mostly concerns outside balconies or terraces, which are equipped on the outside with upstanding borders made of concrete, pebbles or flint containing concrete or made of a closed concrete structure.

Generally, a concrete border is used to divide different balconies. Through this, the rain is guided, by means of a gutter, to a drain pipe.

The defects can almost always be detected at the underside of the balconies. There is formation of stalactites; these contain calcareous substances that reject the paint.

The damage has highly progressed, at the moment that rust bleeds appear and visibly corroded the steel reinforcements in the concrete.

### THE DIRECT CAUSES OF THE DAMAGE

The infiltration of rain in the concrete can be the result of various design or construction errors. The missing of a sealing between the flooring compound filling coat and the concrete, is the most usual error.

Another possible default is a sealing of low quality, which causes cracks or a cracked sealing due to the physical settling of the building and which is hardened on the long term. The rain seeps through the balcony coverage (tiles) into the stabilized sand, penetrates further on in the concrete floor and forms the stalactites.

When nothing is done to counter the penetration of the water, the reinforcement steel in the concrete will be attacked and will corrode. The result will be the cracking of the concrete.

As a matter of fact the damage is a result of rain, which means that the damage pattern is highly influenced by the rain pattern.



## IS THERE A SOLUTION?



To prevent further damage to the balcony and terrace floors, one has to fight the cause of the problem: avoid the further penetration of water through the concrete floor.

Basically, this can be done by the following two ways:

- A. One provides an efficient, fully waterproof substrate covering.
- B. The application of a sealing beneath the balcony floor.

This last solution is a structural quite difficult procedure: the balcony or terrace floor has to be fully removed and a lasting waterproof covering, like a synthetic or bituminous foil, has to be used.

The sand-cement bed has to be renewed and be covered by lasting tiles.

These transformations can cause a lot of nuisance to the residents and pollute their habitat.

In the narrow sense of the word, a guarantee can't be granted on waterproofing, as in the long run the movements of the balconies, due to variations in temperature and humidity, can cause cracks in the sealing. While this can't be detected, one has to start all over again, if necessary!





## THE RD-COATINGS WATERPROOFING SYSTEM FOR TERRACES AND BALCONIES

As a paint and waterproofing products manufacturer, Dothée has developed a waterproofing system for balconies and terraces, that offers a suitable solution to damage to these objects caused by prolonged rain infiltration.

This system guarantees a lasting waterproofing. Due to the ongoing elasticity, the movements of the substrate, made by variations in temperature and humidity, are absorbed. This will prevent cracking.

The system is weather resistant, gives easy maintenance and resists to normal pedestrian traffic.

Do you want our advice?

Just let us know! A technical representative from our company will come on the spot. After a thorough examination on the object he will, orally or in writing, give a free, noncommittal technical advice.

We offer to do one or several inspections on the job during the works, which will guarantee a perfect result.





## THE ON-SITE INSPECTION:

### > The surface of the terrace is submitted to a thorough examination:

- Control of the stability of the balcony substrate; loose tiles or pavements are detected by knocking on the substrate. When necessary, they are fixed with a shrink-resistant mortar; the **RD-CEMENTFILLER** for example.
- Inspection of the drain pipes; these are unblocked or replaced, when they show bursts or have hardened.
- After that, an efficient cleaning needs to be done. A dry cleaning, if possible, to avoid a further moist saturation.
- Leave to dry thoroughly, whenever the substrate needed to be cleaned by high pressure cleaning.



## THE APPLICATION OF THE RD-COATINGS BALCONY OR TERRACE WATERPROOFING SYSTEMS

### > Always work on a thoroughly cleaned, stable and dry substrate.

- Porous surfaces: Apply an impregnation coat of **RD-UNIFIX**. The consumption depends on the porosity of the substrate.
- Smooth surfaces: Apply the **RD-ELASTOMETAL** as a fixation coat, diluted with 25% water. Consumption about 6 m<sup>2</sup>/L.
- Then, apply a thick coat of **RD-ELASTODECK**. Stick the **RD-ROOF FLEECE MS** into the wet coat of **RD-ELASTODECK**, without folds and with fleece overlaps of 5 cm when necessary. Leave to dry.
- Recoat with **RD-ELASTODECK**, until the fleece is completely covered. Consumption: about 1,5 to 2 Kg/m<sup>2</sup>, depending on the structure of the substrate. This is a fully waterproof finishing.

For a smooth, maintenance friendly and dry substrate submitted to pedestrian traffic, the following finishing is recommended:

Application of a coat **RD-HYDROGRAFF FLOOR** or **RD-MONOFLOOR** (waterborne polyurethane paint).  
Consumption: About 6m<sup>2</sup>/L.

Anti-slip finishing:

When the final coat of **RD-ELASTODECK** has been applied, one needs to pour quartz sand or quartz beads into the wet coat, by means of a perforated sprinkle box. This should be done after determination of the desired structure and color in agreement with the owner, architect or customer.



When the coat is completely dry, the superfluous grains must be brushed. If necessary, this can be done, by means of an industrial vacuum cleaner.

One finishes with a topcoat of **RD-HYDROGRAFF FLOOR** or **RD-MONOFLOOR**

This system gives you an advantageous price – quality ratio.



#### > **Treatment of the underside of balconies or terraces:**

You better wait a considerable time after the application of the waterproofing system, to let the implied moisture the time to evaporate.

After a moisture control by our technical representative or by the painter/executor, the salt rejections must be thoroughly removed by scouring off and dusting off.

Seal off active bursts with **RD-ACRYKIT**, stabilized with **RD-CEMENTFILLER**. Impregnate well with **RD-UNIFIX** and finish off with two coats of **RD-MUR ACRYL**.

For more information about concrete repair, we refer to our catalogue «**CONCRETE REPAIR**», available on demand.