

## RC DRYGEL 80

### 80% CONCENTRATED CREAM FOR INJECTION AGAINST RISING DAMP IN WALLS

#### Rising damp



#### ADVANTAGES OF RC DRYGEL 80

- ✓ 80% active ingredients
- ✓ User-friendly and ecological
- ✓ Perfect diffusion through evaporation
- ✓ 'Highly efficient' according to BBRI
- ✓ Does not contain solvents and paraffins
- ✓ No odor nuisance or nuisance for the user
- ✓ No loss of product

#### Description

RC DRYGEL 80 is a user-friendly and ecological product, consisting of 80% alkoxy silane and siloxanes emulsified in water. Due to its balanced mixture and high active ingredient content, RC DRYGEL 80 is very effective against rising damp. Due to the transition phase from gel to a vapor phase, RC DRYGEL 80 spreads optimally in the injected wall so that a watertight barrier layer is obtained. Due to the optimal diffusion, RC DRYGEL 80 makes it possible to treat walls with cavities, cracks and tears, as well as hollow concrete blocks and materials such as cinder blocks and cellular concrete.

#### Test report

RC DRYGEL 80 has been tested by the BBRI (Belgian Building Research Institute) with report number DE 622X910/EXT. RC DRYGEL 80 obtains a **"highly efficient product"** score.

#### Properties

RC DRYGEL 80 is free of solvents (in contrast to the classic injection fluids that contain 85 to 95% carriers, mostly solvents, which evaporate in the living area). By using RC DRYGEL 80 there is no risk for the user or resident and no odor nuisance.

#### Speed and simplicity:

- Easily spreads through a mortar layer;
- Extremely rapid injection;
- Ready-to-use injection cream and handy packaging so that no loss of product occurs;
- No misapplication is possible;
- Easy to calculate in advance exactly what quantity of the product is needed (see table);
- No damage to the bricks;
- Application without risk of splashes - application in adjacent walls without risk of damage to the neighbor.

#### Effectiveness:

- High concentration of active ingredients: 80%;
- Guaranteed effectiveness by the manufacturer: RC DRYGEL 80 is the result of years of testing both in laboratories and on sites;
- RC DRYGEL 80 is made on the basis of alkoxy silane and siloxanes, which are considered by the Belgian BBRI as active substances that give excellent results;
- Application in all types of materials;
- Perfect distribution and thus effectiveness, even in saturated masonry - constant and regular injection of active ingredients.

## Respect for the environment and health:

- Product in gel phase;
- Odorless and non-flammable;
- Does not contain solvents or paraffins. Therefore there is no health risk for the person using the product or for the occupant of the processed building. Perfect for use in residential areas;
- No useless transport of liquids, as a result: limited transport costs;
- No loss of product;
- Little waste (packaging).

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## **Functioning**

The high active ingredients content of RC DRYGEL 80 spreads through the entire thickness of the wall and is then transformed into a hydrophobic resin. This polymerization takes place over a period of approximately 3 weeks, this period is necessary in order for the product to penetrate optimally, down to the finest "hairline cracks" which generally take up and absorb the most water through the process of capillarity.

The dispersion also takes place by evaporation of the active ingredients, in this way the materials that are not directly connected with the product are also hydrophobed, which makes it possible to treat walls with cavities, cracks and tears as well as hollow concrete blocks and materials such as cinder blocks and cellular concrete.

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## **Substrate**

RC DRYGEL 80 is suitable for fine and thick walls consisting of the following materials:

Full brick walls:	Drill in a horizontal mortar layer
Natural stone walls:	Drill two-sided in a mortar layer at $\pm$ the same level
Facade brick:	Drill in a horizontal mortar layer
Cellular concrete:	Drill in the mortar layer in case of masonry, drill in the cellular concrete blocks if glued
Hollow and solid concrete blocks:	Drill into or just above a horizontal mortar layer
Poroton bricks:	Drill into or just above a horizontal mortar layer
Silicate brick:	Drill in a horizontal mortar layer with a spacing of 8 cm

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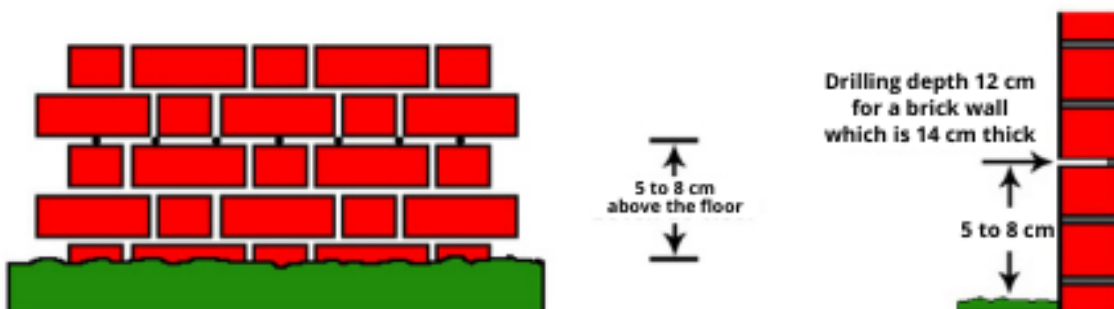
## **Application instructions**

### Preparation of the substrate

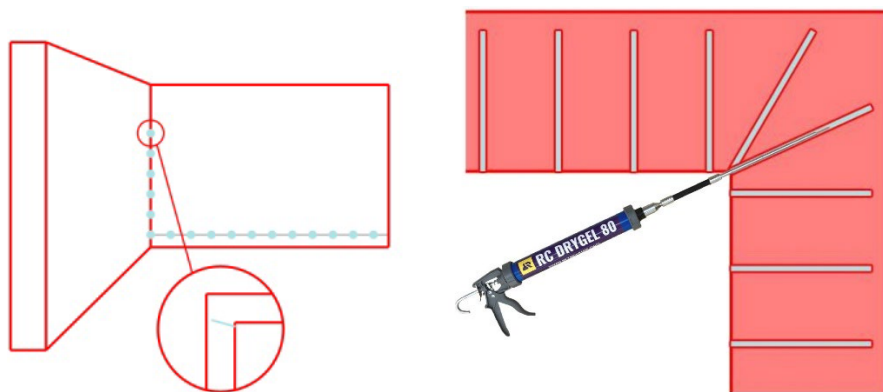
Remove baseboards and panelling. Remove all affected plasters until above the level of the mortar to be treated. If a treatment or injection against rising damp has already been carried out with another product, drill the holes  $\pm$  5 to 8 cm above the old holes. In the presence of an old horizontal water-proofing layer eg. in bitumen or plastic, remove all plaster under this layer and inject RC DRYGEL 80 under the water-proofing layer if possible. Inject as close to the floor level as possible, preferably at plinth height. Never inject below the level of the outer pass.

### Drilling

Drill horizontal holes with a diameter of 14 to 16 mm in the mortar layer or stone, with a spacing of 10 to 12 cm at an angle of 15° to 30°. Set the drilling depth on the drill's spacer or stick a piece of tape around the drill at the desired drilling depth. The depth of the drill holes varies according to the wall thickness (see table below).



## Remark concerning adjacent interior walls and inside corners:



Between injected walls and adjacent interior walls that do not require treatment, a vertical layer of RC DRYGEL 80 must be applied. Respect a minimum height of 120 cm and a minimum of 50 cm above the highest rising level of the wall moisture and the salts. Inside corners must be drilled diagonally, distance between the holes: 10 to 12 cm.

Wall thickness	Drill depth
9 cm	7 cm
14 cm	12 cm
19 cm	17 cm
29 cm	27 cm
40 cm	37 cm
50 cm	47 cm
60 cm	56 cm

- Full internal or external walls: drill and inject on one side.
- Cavity walls: drill and inject inner and outer cavity wall separately.
- Natural stone walls and filled walls: drill and inject into the mortar. If the stone is porous, such as sandstone, it is also possible to drill into the stone itself.

## Tools

RC DRYGEL 80 can be injected in various ways. Reynchemie has specially developed a pistol to use the 600 ml cartridges.

### Manual injection pump



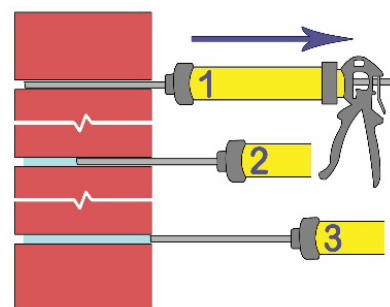
- 1: Pull out the push rod and piston to the maximum
- 2: Insert the cartridge of RC DRYGEL 80 into the tube of the pistol
- 3: Cut or puncture the visible end of the cartridge

## Injection

Fully insert the injection needle to the end of the drill hole and pull back a few centimeters. Gently squeeze the pistol handle and while gradually withdrawing the pistol, fill the hole completely with the RC DRYGEL 80 to within 1 cm of the wall surface.

The drill holes must be closed afterwards with a hydrophobic mortar (RC 221 or RC 222).

RC DRYGEL 80 can be applied in the drill holes in one application.



## Consumption

Number of cartridges:

Thickness of wall	Length of wall						
	5 m	10 m	15 m	20 m	25 m	30 m	35 m
10 cm	1	2	3	4	4	5	6
20 cm	2	4	6	7	9	11	12
30 cm	3	5	8	10	13	15	18
40 cm	4	7	11	14	18	21	24

Amount (in kilograms):

Thickness of wall	Length of wall						
	5 m	10 m	15 m	20 m	25 m	30 m	35 m
10 cm	0,66	1,33	1,99	2,66	3,33	3,99	4,66
20 cm	1,55	3,11	4,66	6,22	7,75	9,33	10,85
30 cm	2	4	6	8	10	12	14
40 cm	2,72	5,44	8,16	10,88	13,61	16,33	19,05

## Technical information

Active ingredients:	Alkoxysilane + siloxane
Active ingredients content:	80%
Aspect:	Thixotropic gel
Density (20°C):	0,9
Flash point:	64°C (ISO 3679)
Solvent:	Water
pH:	Not applicable
Color:	White

### Potential initial efficiency of the product "RC DRYGEL 80"

Report BBRI n° DE 622 X 910/EXT N

Amount of product applied in the test pieces. In accordance with the procedure described in 1.1.4 and taking into account a consumption of 1,25 l/m<sup>2</sup>, the test pieces were treated with 2 ml of ready-to-use product.

Initial efficiency (*) of the product "RC DRYGEL 80"	Humidity of the test pieces under application (% relative to the capillary saturation after 24 hours)		
	40%	60%	80%
Reduction of the capillary absorption	76%	65%	60%
Migration through the material	69%	63%	67%
Class (since 2013)	Class A+	Class A+	Class A+

(\*) average values. The corresponding classes are determined based on the values in the table below.

New classification			
Class	Efficiency	Migration	Remark
A+	≥ 60%	≥ 25%	Highest efficient product
A	≥ 40% and < 60%		Very efficient product
B	≥ 20% and < 40%		Efficient product
C	< 20%	< 25%	Does not suffice the conditions

## Security

Consult the most recent Safety Data Sheet.

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## Remarks

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- It is advisable to check the wall before injection for the presence of harmful salts such as nitrates, sulphates, chlorides ... Hygroscopic salts such as chlorides and nitrates mainly feed on rising damp. Injection against rising damp repels the transport means of the salts, but does not prevent the salts already present from causing damage. These salts, and especially nitrates, have the property of extracting moisture from the air and, even with adequate action against rising damp, to keep the masonry moist on the surface. Such efflorescence, when abundant, can tear off finish layers. In this case, such walls should be treated with RC SULFASTOP ZB or RC NITRABLOCK (see technical data sheets).
- Plaster cannot be hydrophobicized with silanes and / or siloxanes. It is therefore important that no plaster bridges remain anywhere between the wet and treated areas.
- Even with correct injection against rising damp, the complete drying of the wall can take a long time. On average 1 month drying time per 2 cm wall thickness.
- Do not apply when the temperature is less than 5°C. This refers to the ambient temperature as for the surface temperature on which the product will be applied.

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## Cleaning of equipment

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- Keep only in the original container in a cool, frost-free, well-ventilated place. Opened containers should be carefully closed and stored upright to prevent leakage. Store between +10°C and 25°C.
- 9 months after manufacture in original, closed packaging.

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## Storage / Shelf life

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- At least 1 year in closed original packaging.
- Storage: between +5°C and +25°C.

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## Packaging

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- Cartridge of 600 ml - 20 cartridges per box (item no. 210134)
- 12 kg (item no. 210136)

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## Accessories

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Visit our site for more documentation: [en.reynchemie.com/products/rc-drygel-80](https://en.reynchemie.com/products/rc-drygel-80)

### Legal Notes

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