### FOUNDATION INSULATION

LOGIC CHEMIE

#### Moisture

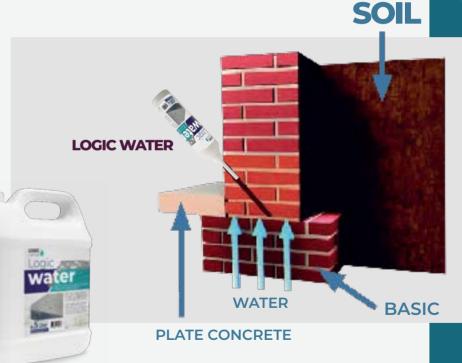
- Most of the monuments can not be repaired or protected properly
- Because of moisture and waterabsorbation the monuments get weaker and more worse
- Pressure water from the soil
- Moisture and water coming from outside
- Moisture and water coming between cracks and openings



The building gets exposed to this water and find its way inside.

### Pressure water coming from the soil

- Pressure water coming from the soil can be solved with Logic Water
- Logic water is a waterrepellant based on parafinne
- Paraffine is an oil based product that does not harm human beings, animals and the environment



### Logic Water

- Logic water is suitable for porous surfaces
- Smaller than nano. Spreads itself inside the pores
- Dries the moisture in the wall within 70 days.
- Products for at least 20 years
- Because monuments are weak due to waterexposure it is not wise to use pressure with injection.
   For this reason we apply logic water with a bottle system.







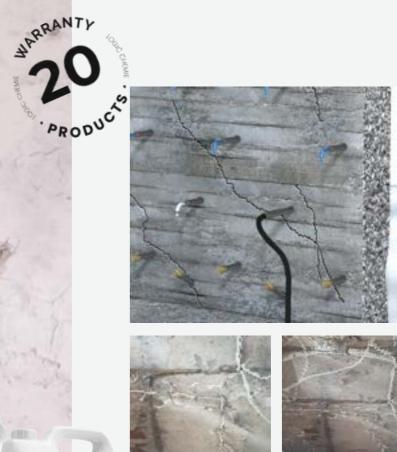
### Repair and Reinforce

- To repair cracks and openings you will need products that have an optimal adhension to weak and moist surfaces
- You need to be careful with products that react to water with monuments, as it can cause harm
- Heavy chemicals and sours need to be avoided while working with monuments

#### Logic **UW**

- Logic Uw is a products that is based on epoxy-resin without foam or other additions
- Because of the logic technology the product spreads itself through the pores and repairs even the most capillary and small cracks
- Does not dissolve in water→ doesn't harm (drink)

Does not consist harmful ingredients and damps. This product can be used with porous surfaces





### Logic **UH**

- Logic Uh is a products that is based on epoxy-resin mixed with sand without foam or other additions
- Because of the logic technology the product spreads itself through the pores and has an optimal adhension with surfaces. This product is being used for repairing and sealing
- Suitable for joints, roof and construction beams
- Does not dissolve in water→ does not contaminate (drink) water
- Does not contain harmful ingredients/damps and can be used as repairing mortel with porous buildings





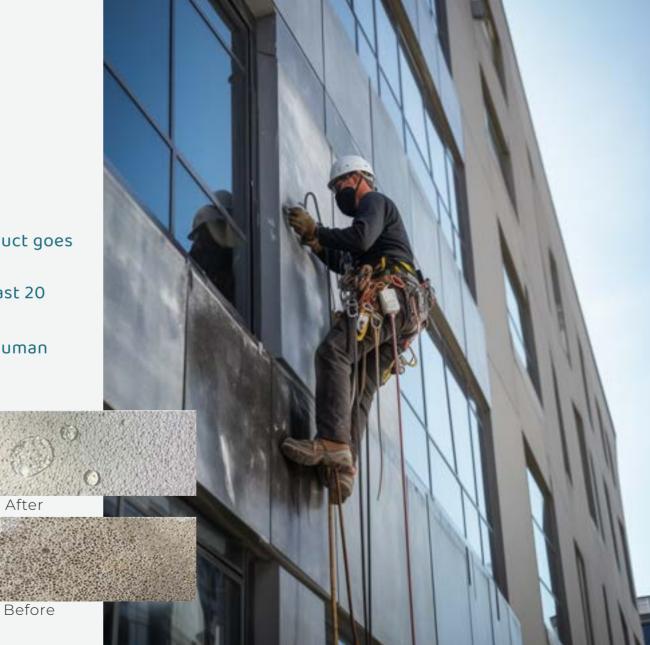
### Protect

- Except pressure water from the soil there is also rainwater absorbing in the facade
- Historical buildings mostly don't have any isolation and because of that water could penetrate for years
- Because of the moisture the materials are MORE WEAK.
- After repairing it is important to add an protecting and isolating coating
- It is important that this coating is breathable
- The coating can not contain heavy chemicals, acids or other materials that react on natural stones, lime stones and sand based materials

### Logic **EX**

- Logic ex is suitable for porous surfaces
- Waterrepellant but breathable
- Smaller than nano. Because of this the product goes deep inside the pores
- Protects against dirt and moisture for at least 20 year
- Paraffine is an oil kind that does not harm human beings, animals and the environment.







### How does water enter buildings?

- Water can enter buildings through various pathways, both external and internal.
- External sources include rainwater, flooding, groundwater seepage, surface water, and poor drainage.
- Internal sources include plumbing leaks, condensation, and HVAC system issues.
- Common entry points include roofs, windows, doors, walls, foundations, and building envelopes.
- Prevention measures include proper building design, construction, maintenance, and regular inspections.

#### Water always tries to find its way in. CHEMIE

#### How does water effect a building?

- . Moisture (rainwater) from soil
- . Pressure water from soil
- . Capillary water in between the walls
- . (Rain)water coming from outside through the roof or other leaks

	Moisture (rainwater) from soil	Pressure water from soil	Capillary water in between walls	(Rain)water coming from outside or leaks
Rooftop and terrace	-	Х	-	-
Foundation	х	Х	-	x
Balcony	-	Х	-	-
Wet areas (kitchen,				
bathroom etc)	-	Х	-	-
Water depots and				
swimmingpools	-	-	Х	- ,

#### • Foundation insulation

- The foundation and concrete columns, being continuously exposed to moisture and water, are susceptible to damage, weakening the building's longevity and structural integrity. Inadequate water-moisture insulation applications significantly shorten the building's lifespan and can lead to various structural issues.
- Concrete columns, especially, corrode when exposed to water, gradually losing their load-bearing capacity and strength. Even if water protection measures are implemented later on, the decay process persists.
- To enhance the durability of building materials and components, it's crucial to prioritize water insulation using suitable materials, precise detailing, and qualified applications.





## Foundation insulation with Logic DP

- Logic DP utilizes an impregnation method to protect concrete by deeply penetrating its surface.
- Upon application, Logic DP enhances concrete strength by up to 20 times.
- Its technical composition shields concrete against various agents including water, mineral oil, solvents, acids, salt, combustion gases, and pressure.
- Additionally, it forms a colorless coating.

### Foundation insulation with Logic DP

Not soluble in water.

Does not affect drinking water after curing.

Prevents damage from underground bacteria and liquid species.

Utilizes Logic Chemie technology to penetrate deeply into pores, forming a strong bond and surface seal.



## Foundation insulation with Logic DP

- Stronger than membrane options, providing practical and long-lasting solutions.
- Offers a minimum 20-year warranty.
- Suitable for beams, columns, foundation, and building bases.
- For color coating preferences, Logic DS is recommended.



#### Insulation of wet ares with Logic DP



 Areas that are continuously exposed to water can be coated with Logic DP. It is suitable for concrete and ceramic areas such as toilet, bathroom, sink, kitchen, terrace, balcony an so on..

• After the use of Logic DP, these areas are prevented from absorbing water and leakages to the lower floors.

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### Logic DP solutions

• Prevents corrosion and rust formation in the concrete

• Prevents damage and cracks in concrete

 In addition to the safety of the building, it prevents the formation of bacteria and mold and prevents water leakage coming from the roof or ceiling. Logic DP provides healthy and comfortable environments.

#### Foundation Insulation

## Foundation insulation with Logic DS



 Logic DS is a two-component epoxy-based coating that shields against a variety of substances including water, mineral oils, solvents, acids, salt, combustion gases, and harsh weather conditions.

• It demonstrates resistance to over 1,400 chemicals and similar liquids.

LOGIC CHEMIE



## Foundation insulation with Logic DS

- Protects concrete surfaces effectively.
- . Can serve as an alternative to membrane solutions.
- Utilizes Logic Chemie technology to deeply penetrate pores and create a strong bond and surface seal.
- Suitable for use on foundations, bases, and underground surfaces.
- Does not dissolve in water.
- Safe for drinking water after curing.

### Logic DS

- Technical composition protects concrete against agents such as water, mineral oil, solvents, acids, salt, combustion gasses, and pressure.
- Especially when used with Logic DP, the adhesion force is extremely strong. The impermeable layer they form provides concrete to last longer.





### Dilitation and cold joint insulation

Proper waterproofing of expansion joints between structures is crucial to accommodate various structural movements. Many building leaks stem from inadequate insulation in these areas. Dilatation applications must be seamlessly integrated with the waterproofing system employed. Hence, to enhance the longevity of building materials and ensure safety, it's imperative to implement water-moisture insulation with suitable materials, precise detailing, and qualified applications.





#### Foundation Insula-

#### Dilitation and cold joint insulation

#### • Principally; epoxy repair

Principally, epoxy repair mortar is applied on both sides of the cold joint, and a special membrane with holes on both sides is affixed to this mortar to create an impermeable barrier.

- The following membrane types are commonly used for this application:
  PVC
  HYPOLON
  - EPDM
- These membranes are suitable for use in dilations. To ensure the membrane's impermeability, it is essential to use LOGIC UH.

## Dilitation and cold joint insulation with Logic UH

Logic UH is a product comprising epoxy resin mixed with sand, devoid of any polyurethane or (PU) foam.

It serves to create a sealing zone for surface cracks, joints, grating edges, cold joints, and dilatation zones.

Leveraging Logic Chemie technology, the mixture deeply penetrates and establishes a highly robust bond with repair and sealing surfaces.

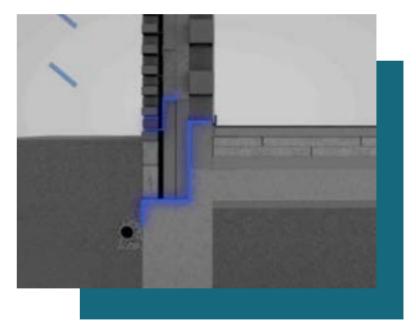
Notably, it does not dissolve in water, poses no harm to drinking water post-curing, and contains no hazardous materials or gases.

Additionally, it can serve as a repair mortar for porous buildings.



### Concrete binding with Logic UH

- Logic UH is ideal for creating a strong bond between two concrete surfaces or between old and new concrete. It is well-suited for such situations.
- Following the waterproofing of the foundation /base with Logic DP, Logic UH can be applied to seal the joints effectively.



## Facade insulation with Logic Ex

- Logic Ex is a water-repellent impregnating product powered by Logic Chemie technology, allowing deep penetration into pores.
- It is formulated with paraffin and biobased ingredients.
- Invisible to the eye, it does not alter the appearance of surfaces.
- Suitable as an alternative to wall insulation or insulation boards on facades, Logic Ex offers practicality, strength, and durability superior to other facade insulation methods.



## Wall insulation with Logic Ex

- Water and dirt repellent properties.
- Maintains open pores for air circulation.
- Water remains as bubbles on the surface.
- Dry walls result in reduced heating costs, with energy savings ranging between 15-35%.
- Paraffin-based formula that is safe for humans, the environment, and animals.
- Offers a minimum 20-year warranty against water and moisture issues.





### **Roof Insulation**

- The rooftop is a critical component of building insulation, as it is susceptible to water pressure and cracking due to non-durable insulation methods.
- This can result in leaks and damage over time. An effective insulation material should exhibit resistance to weather and temperature changes while also providing flexibility to accommodate structural movements.



## Rooftop insulation with Logic DP

Utilizing LOGIC DP for water insulation instead of membranes or other liquid coatings provides effective protection and waterproofing for the rooftop. If a color coating is desired, LOGIC DS can be applied.

Combining its use with LOGIC UH for joints and openings ensures comprehensive coverage. Additionally, it is advisable to apply LOGIC UH around other machinery, pipes, and installations for enhanced protection. LOGIC CHEMIE

### Rooftop insulation with Logic DP

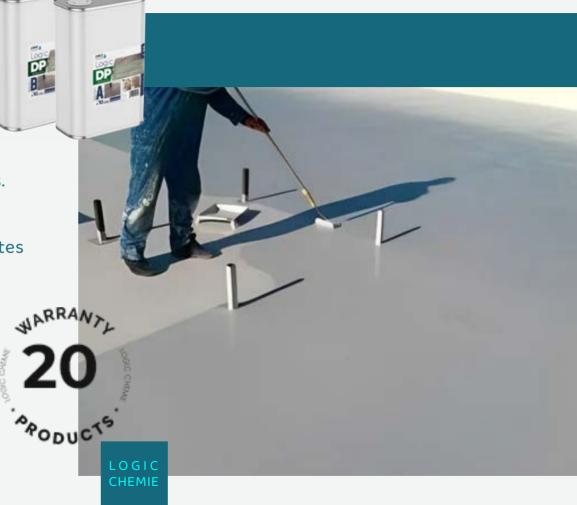
Logic DP enhances concrete strength by up to 20 times.

It is highly suitable as a rooftop insulation product.

Leveraging Logic Chemie technology, it deeply penetrates pores and creates a strong bond.

Resistant to water dissolution.

The coating is colorless.



### Rooftop Insulation with Logic DS

 Logic DS protects and prevents waterleakage better than other types of (liquid) membranes

The product is resistant against more than 1.400 types of chemicals and other similar liquids

Due to the Logic Chemie technology, Logic DS penetrates deep and well into the pores and forms a strong bond and surface sealing

.Does not dissolve in water

.Can be produced in any color by RAL-Code



# Thank You