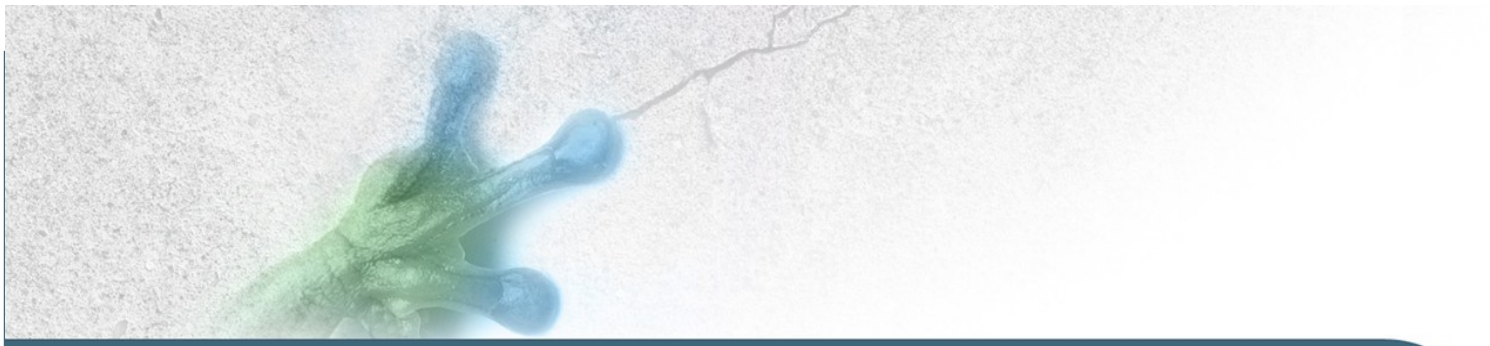


bio-based

sustainable

eco-friendly

Solutions for Construction

KEMICA COATINGS

Reinventing coatings

KEMICA COATINGS
Reinventing coatings

Expert in the field of polyurethanes (PU) and polyurea-urethanes (Hybrids) for more than thirty years, KEMICA COATINGS, based in France, designs, manufactures and distributes high-performance resins.

These resins are bio-based, solvent-free and odourless. They can be applied to concrete, steel or wood substrates to overcome problems of waterproofing, protection of structures, floor covering and anti-corrosion in Industry, Building and Civil Engineering.

Bio-based products

At the heart of the design of **SOUPLETHANE** resins is a strong commitment to the preservation of the environment. Unlike traditional synthetic resins, which are based on petrochemical compounds, the composition of the **SOUPLETHANE** range gives pride of place to renewable natural materials. Sustainably sourced plant extracts are used as the main basis for high-quality polymers. This approach drastically reduces the environmental impact and limits dependence on non-renewable resources.

Negative carbon footprint

By opting for **SOUPLETHANE** resins, companies can position themselves as committed players in favor of sustainable development. In this way, they help reduce their carbon footprint and contribute to the preservation of natural ecosystems. In addition, these natural resins offer an environmentally friendly and safe alternative, meeting the strictest environmental standards.

Electric Comb Leak Test

SOUPLETHANE resins are waterproof. Applied by professionals, they pass the electric comb test without difficulty. This is a commonly used method for evaluating the quality and effectiveness of sealant resins. This process involves applying the resin to a flat surface connected to the ground and then running an electric comb over it. The comb detects any porosity or air bubbles that could compromise the seal.
This fast and accurate test ensures the reliability of the sealants, ensuring optimal protection against water or other harmful substances.

Fire resistance

The fire resistance of resins is essential to ensure the safety of goods and people in buildings. To do this**, KEMICA COATINGS formulates** resins that achieve performances rarely achieved in the profession:

- **SOUPLETHANE** is classified Bfl-S1 (european standards)
- For high-rise buildings or establishments open to the public, **SOUPLETHANE** is available in a NON-FLAMMABLE version with a Eurofeu classification B–S2–D0 (**SOUPLETHANE 5 COR FRB**).

KEMICA COATINGS
Reinventing coatings

Summary

REQUIREMENTS IN THE CONSTRUCTION ENVIRONMENT

CONSTRUCTION works (buildings, shopping centers, large-family homes, single-family homes, public places) must meet the requirements of sustainability, hygiene, safety and economics.
The coating techniques chosen must therefore meet these requirements.

The performance criteria of the coatings sought after are as follows:

- **DURABILITY:** a ten-year warranty is required, but a lifespan of 30 or 40 years is sought
- **WATERPROOFING:** concrete structures are subject to the risk of cracking of the substrates, and waterproofing must be guaranteed whatever the climatic conditions (winter: negative temperature – 20°C, summer: temperature +50°C)
- **CONTINUOUS AND SEAMLESS COATING** (floors, walls and ceilings)
- **RESISTANCE to UV rays that degrade coatings.**
- **COLOR STABILITY**
- **MECHANICAL RESISTANCE to wear, abrasion, shocks etc.**
- **NON-FLAMMABILITY of coatings and thermal insulation for High Rise Buildings**
- **CERTIFICATION: HQE A+ (or BREEAM)**
- **NEGATIVE CARBON FOOTPRINT**

- **RELIABILITY OF IMPLEMENTATION AND USE**
  - **NO EMISSION OF ORGANIC VAPOURS AND SOLVENTS DURING PROCESSING**
  - **NON-TOXICITY OF THE COATING**
  - **RESISTANCE TO WEAR**
  - **ANTI-SLIP**
  - **FIRE RESISTANCE:** does not spread the flame and does not contribute to combustion.

THE ANSWERS OF SOUPLETHANE COATING

- **HYGIENE :**

The SOUPLETHANE film is continuous, without porosities or microporosities. It prevents bacterial growth, not allowing bacteria in contact with the coating to find the nutrients necessary for their survival and proliferation. A test carried out by the Institute of Microbiological Research (IRM) shows that a strain of bacteria (SALMONELLA) in contact with the coating reduces by 97% after just 15 minutes, 99.83% after 24 hours and 99.9999% after 7 days. This property is of great interest for applications for cladding ceilings, false ceilings, ventilation ducts, etc. difficult to access and not subject to daily maintenance.

The absence of porosities, unlike hydraulic binders or stainless-steel binders for example, prevents the proliferation of bacteria or yeasts that nestle in the pores, which can be a cause of contamination.

- **ANTI-DUST :**

SOUPLETHANE does not become electrostatically charged after friction, thus not attracting contaminating dust from the atmosphere.

Its anti-dust properties are due to two combined effects:

- Low natural susceptibility to attract oneself with dust (test carried out by the **CEA**, low susceptibility of around 3%).
- For the dust that has nevertheless settled on the substrate, the decontamination after conventional cleaning is almost total (99%). By the way, it is not necessary to use aggressive decontamination cleaning products, a simple wash with deionized water is sufficient (**CEA test**).

- **CONTINUOUS AND SEAMLESS COATING :**

SOUPLETHANE film can be applied without sagging in a thick film on a horizontal, vertical or ceiling surface. The coating is continuous and seamless.

- **NON-TOXICITY OF THE COATING:**

SOUPLETHANE is bio-sourced, BPA-free, PHTHALATE-free, solvent-free, FORMALDEHYDE-free.

- **EASE OF CLEANING, MAINTENANCE AND REPAIR:**

SOUPLETHANE is easy to clean: its closed surface makes it difficult for dirt to encrust. It is also very resistant to damage from cleaning products.
It is easy to repair by re-applying a new layer of resin on top of the old one - CSTB test N° CLC-ETA-13-26042113-1.

- **RESISTANCE TO CHEMICAL AGENTS :**

SOUPLETHANE is resistant to a wide range of chemicals: bases, acids, solvents. It is commonly used for protective coatings of drip tanks, acid-resistant floors, and retention tanks storing chemicals.

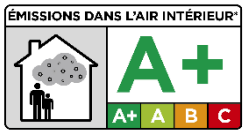
- **SEALING :**

In the event of cracking in the concrete substrate, the **SOUPLETHANE** can bridge cracks with an opening of 3 mm without damage thanks to its elasticity.
This is of major interest for two reasons:

- Cracks in a concrete slab are the primary cause of slab degradation. This quality guarantees the longevity of a floor covering,
- Cracks are a source of contamination and are difficult to clean. Ref.: LCPC test (ability of **SOUPLETHANE** to bridge cracks with an opening of more than 3 mm).

- **NO EMISSION OF ORGANIC VAPOURS AND SOLVENTS DURING PROCESSING:**

SOUPLETHANE is solvent-free.
It does not emit any components that pose a health hazard:
. No smell
. No BISPHENOL A, F or S
. No formaldehydes
. No phthalates
. No VOCs



The SOUPLETHANE 5 coating meets the most stringent requirements of HQE or BREEAM certified buildings.
SOUPLETHANE is certified: HQE A+ (+)

- **NON-DEGRADABLE BY UV RAYS :**

SOUPLETHANE does not chalk under the effect of UV rays and thus retains its mechanical properties for many years. (Epoxy resins lose an average of 0.1 mm / year of thickness in France, and nearly 1 mm / year in countries highly exposed to UV rays)

- **UV COLOR STABILITY :**

The ALPIC finish, solvent-free aliphatic polyurethane resin, ensures the stability of the tint to UV.

- **WEAR RESISTANCE :**

The **SOUPLETHANE** has been tested by the CSTB according to European standards. It obtains a classification equivalent to the UPEC U4P4.

- **ANTI-SLIP POWER :**

SOUPLETHANE is used as a floor covering by sprinkling quartz, corundum or silica aggregates on the surface layer to meet this requirement**.**

- **FIRE RESISTANCE :**

The **SOUPLETHANE 5 COR FRB** is non-flammable classified EUROFEU: B – S2 – d0.

100%

waterproofing
anticorrosion
non flammable
antifouling
antibacterial

0%

solvent
toxicity
VOC
BPA

THE PRODUCTS USED

SOUPLETHANE 5

Solvent-free, two-component polyurea-urethane resin that provides a liquid membrane for waterproofing, corrosion protection or continuous flooring, without microporosities.

Can be applied manually (brush, roller) or by spraying with an airless machine.

CSTB Technical Assesment N° AT: 12/15-1704

DTA from CSTB

SOUPLETHANE 5 COR FRB

Solvent-free, two-component polyurea-urethane resin that produces a liquid membrane for waterproofing, corrosion protection or continuous flooring, without microporosities for the protection of floors and walls or chemical retentions.

NON-FLAMMABLE resin rating: B – S2- d0

Can be applied manually (brush, roller) or by spraying with an HP twin-component airless machine.

PU AQUEUX R

Solvent-free, fast-setting, single-component primer that can be applied manually (brush, roller) or by spraying with HP single-component airless machine.

Solvent-free PU primer

KEMIPOX

Two-component, all-purpose primer that can be applied manually on wet concrete (brush, roller).

Solvent-free epoxy primer

ALPIC

Two-component, solvent-free, UV-resistant ALIPHATIC polyurethane resin that provides a protective topcoat on liquid waterproofing membranes.

UV-stable color topcoat

POUDREC

Low-density anti-slip aggregate that can be applied to fresh resin. Grit size 300 to 600µ

Anti-slip

KEMTEX

Reinforcement cloth for the treatment of singular points and cracks.

Reinforcement cloth

TECHNICAL PERFORMANCE CERTIFICATIONS AND REPORT

Tests	Test Conditions	Results	Organism
Adhesion	Dry concrete Dry concrete Dry concrete Wet concrete	4.0 MPa 5.5 MPa 3.5 MPa 2.6 MPa	CSTB Metal Institute King Fahd Institute CSTB
Cracks caused	T= 20°C T= - 5°C T= -10°C T= - 30°C	4.9 mm 2.7 mm 1.5 mm 0.8 mm	VERITAS VERITAS LCPC VTT (Finland)
Substrate Movements	1 mm crack 500 cycles Amplitude +/-1 mm Temperature : -10°C	Waterproof under 100 mm of water	CSTB
Tensile Strength	Speed : 1 mm/min	18 MPa @23C 32 MPa @-10°C	LCPC
Compressive Strength	ASTM C 109	113 MPa	FUGRO SUHAIMI
SOUPLETHANE Repairability Test		Adhesion >4 MPa	CSTB
Static puncture shear resistance	ETAG TR007	L3 @23°C L3 @60°C	CSTB
Dynamic Punch Shear resistance	ETAG TR006	I3 @23°C I3 @60°C	CSTB
Abrasion resistance	EN ISO 5470-1 Meule Taber22 Load 1,000 g	630mg/1 000 rotations	CSTB
Water Absorption	NFT3080 ETAG TR003 DIN 1048	0 .0 Waterproof 0 .0	LCPC (Morocco) CSTB King Fahd Institute
Hardness Shore A		**>95**	

Tests	Test Conditions	Results	Organism
Resistance to Artificial Aging Cycles	NF P 84-402	75 cycles of 12 hours No blisters, no cracks, no peeling	VERITAS
Resistance to oxidizing agents	Resistance to 15% perchlorate @100°C	No effect	King Fahd Institute
Diffusion of chloride ions	ASTM 1202 Diffusion coefficient measurement	<5 coulombs (10000 coulombs for concrete) Not Measurable (< 10-14)	King Fahd Institute LERM
Application on dripping concrete		Adhesion : 3.15 MPa	Internal Testing
Chemical Resistance	pH 1 to 13	No saponification reaction at high pH	Suez/Veolia/ AREVA CSTB
Immersion Adhesion After Aging	Immersion in demineralized water at 75°C for 45 days	Adhesion : Class 1	Metal Institute of SHENYANG
Pressure Reservoir		1 MPa 1.5 MPa	CEBTP LCPC (Morocco)
Shock and impact resistance	NF EN 13813	IR20	CSTB
Puncture Shear Resistance	NF EN 433	Residual 0.05mm	CSTB
Resistance to movement of a 1 mm joint after ageing	ETAG TR 008	No cracks, No delamination Waterproof under 100 mm of water	CSTB
Resistance to cracking	NF EN 1062-7 Method A Annex C.2	Initial: >3mm After ageing cycle at 70°C: >3mm	CERIB

AREAS OF EMPLOYMENT AND TECHNICAL RECOMMENDATIONS

BUILDING

. FLAT ROOF

. WATERPROOFING UNDER GARDEN TERRACES

. WATERPROOFING OF INTERMEDIATE FLOORS

. KITCHEN FLOORS COVERINGS

. WATERPROOFING OF WET ROOMS

. FOUNDATIONS WATERPROOFING

. CELLARS AND ELEVATOR PITS

. PARKINGS - TERRACES PARKINGS

. ORNAMENTAL POOLS, FOUNTAINS


BUILDING

KEMICA COATINGS
Reinventing coatings

FLAT ROOF

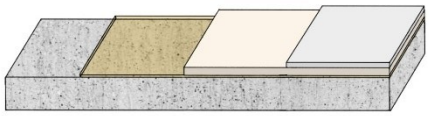
Benefits :
- Fire Rating : Bfl-S1
- Seamless liquid sealing
- Bio-sourced resin: negative carbon footprint

STEP 1: Preparation of the substrate (see page 36)

STEP 2: Treatment of singular points (see page 37)

STEP 3: Application of the PU Aqueux R primer

- Laying of the primer
  - Roller application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour



Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer single-component	**Density @25°C according to ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4: Application of SOUPLETHANE 5 resin

- Using a roller or notched comb, apply 2 mm of SOUPLETHANE 5

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B : 3/1 in volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of mixture A+B according to ISO2811**	1.3 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%	**Waterproofing**	3 mm crack bridging

STEP 5 : Finishes

- Optional: Non-slip by spraying on the resin POUDREC powder of 400 µ or 600 µ followed by a thin sealing layer of ALPIC (300 g/m²) for a UV-stable finish

- COOL ROOF effect depending on the pigments used.

KEMICA COATINGS
Reinventing coatings

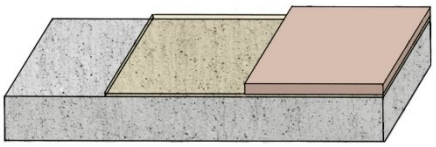
WATERPROOFING UNDER GARDEN TERRACES

Benefits:
- Chemically resistant to fertilizers over a pH range of 1 to 14
- Resists to roots punching

STEP 1 : Substrate preparation : grinding

STEP 2 : Treatment of singular points

STEP 3: Application of the PU Aqueux R primer



- Laying of the primer
  - Roller application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour

Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer single-component	**Density @25°C according toi= ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4: Application of SOUPLETHANE 5 resin
- Thickness 2 mm – no anti-root felt required.

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B : 3/1 in volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of mixture A+B according to ISO2811**	1.3 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%	**Sealing**	Cracks with an opening of more than 3 mm

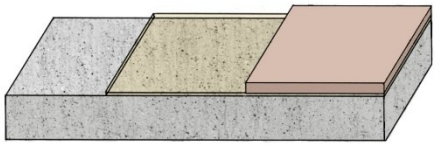
KEMICA COATINGS
Reinventing coatings

WATERPROOFING OF INTERMEDIATE FLOORS

Benefits :
- Directly accessible
- Provides waterproofing in case of concrete cracking (up to 3 mm crack opening)
- Easily repairable

STEP 1: Substrate preparation: grinding

STEP 2: Treatment of singular points.



STEP 3: Application of the PU Aqueux R primer

- Laying of the primer
  - Roller application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour

Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer single-component	**Density @25°C according to ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4: Application of SOUPLETHANE 5 resin

- FLOOR: with a roller or notched comb, 1.5 mm of SOUPLETHANE 5
  Optional anti-slip finish – Spraying on liquid film of POUDREC powder – 600 µ and sealing with a layer of SOUPLETHANE 5 resin.

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B : 3/1 en volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of mixture A+B according to ISO2811**	1.3 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%	**Sealing**	3 mm concrete cracks bridging

KITCHEN FLOORS COVERING

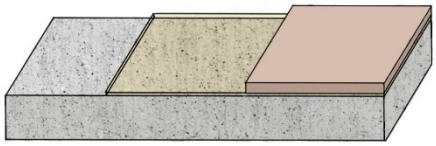
Benefits :
- High adhesion strenght to concrete : 4 MPa
- Provides waterproofing in case of concrete cracking (up to 3 mm crack opening)
- Odourless
- No bacteria contamination development

STEP 1: Preparation of the substrate: grinding

STEP 2: Treatment of singular points.

STEP 3: Application of the PU Aqueux R primer

- Laying of the primer
  - Roller application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour



Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer one-component	**Density @25°C according to ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4: Application of SOUPLETHANE 5 resin

- floor: with a roller or notched comb, 2 mm of SOUPLETHANE 5
- Kitchen floor: roller or mechanized spraying, 2 mm application of SOUPLETHANE 5 + non-slip finish - Spray of POUDREC 600 µ and closing layer with SOUPLETHANE 5

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B : 3/1 en volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of mixture A+B according to ISO2811**	1.3 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%	**Sealing**	3 mm concrete cracks bridging

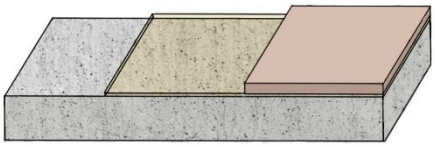
WATERPROOFING OF WET ROOMS

Benefits :
- Coating resistant to hot liquids and hydrolysis
- Resists to thermal shocks
- Provides waterproofing in case of concrete cracking (up to 3 mm crack opening)

STEP 1: Preparation of the substrate **(see page 36)**

STEP 2: Treatment of singular points **(see page 37)**

STEP 3: Application of the PU Aqueux R primer



Laying of the primer
- Roller application
- Consumption : approx. 150 g/m²
- Drying in 1 hour

Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer one-component	**Density @25°C according to ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4: Application of SOUPLETHANE 5 resin
- With a roller, 2 mm of SOUPLETHANE 5 are applied to the floor with an anti-slip finish - Projection of POUDREC 600 µ and a closing layer with SOUPLETHANE 5 and 1.5 mm vertically.

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B: 2/1 in volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of A+B mix**	1.1 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%	**Fire Rating**	Bfl-S1

FOUNDATION WATERPROOFING

Benefits :

- Root penetration-resistant coating
- Can be applied by RH<95% and -10°C < T°C < 50°C
- Provides waterproofing in case of concrete cracking (up to 3 mm crack opening)

STEP 1: Preparation of the substrate **(see page 36)**

STEP 2: Treatment of singular points **(see page 37)**

STEP 3: Application of the PU Aqueux R primer

- Laying of the primer
  - Roller application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour

Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer one-component	**Density @25°C according to ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4: Application of SOUPLETHANE 5 resin

- Using a roller or notched comb, apply 2 mm of SOUPLETHANE 5 to the floor and 1.5 mm vertically to the roller.

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B : 3/1 en volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of A+B mix**	1.3 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%	**Fire Rating**	Bfl-S1

CASING OF CELLARS AND ELEVATOR PITS

Benefits :
- SOUPLETHANE 5 resin provides sealing at back pressure – 1 MPa.
- Cracking of 3 mm concrete cracks
- Aesthetic finish possible (ALPIC, glitter, tiling possible on sandblasted finish)

-

STEP 1: Preparation of the substrate: sanding, washing with HCl acid solution and rinsing with clean water

STEP 2: Treatment of singular points.

STEP 3: Application of the PU Aqueux R primer
- Laying of the primer
  - Roller application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour

Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer single-component	**Density @25°C according to ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4 : Application of FLEXIBLETHANE 5 resin
- Using a roller or notched comb, apply 1.5 mm of SOUPLETHANE 5 to the floor and 1.5 mm vertically with the roller.

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B : 3/1 in volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of A+B mix**	1.3 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%	**Fire Rating**	Bfl-S1

PARKINGS - TERRACES PARKINGS

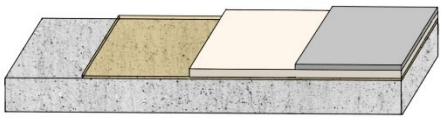
Benefits :
- SOUPLETHANE 5 resin can be applied in a thick non-slip film.
- Resistant to oils and hydrocarbons
- Fire Rating : B fl-S1
- Bio-based resin: carbon negative footprint
- Wear resistant to rolling

STEP 1: Preparation of the substrate **(see page 36)**

STEP 2: Treatment of singular points **(see page 37)**

STEP 3: Application of the PU Aqueux R primer

- Laying of the primer
  - Roller application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour



Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer single-component	**Density @25°C according to ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4: Application of SOUPLETHANE 5 resin

- With a roller or notched comb, 3 mm application and non-slip finish: 1.2/2 mm silica projection and sealing with SOUPLETHANE 5 resin.

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B : 3/1 in volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of mixture A+B according to ISO2811**	1.3 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%	**Fire Rating**	Bfl-S1

STEP 5 : Optional finishes

- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat

ORNAMENTAL PONDS, FOUNTAINS

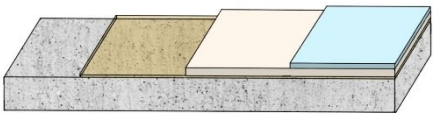
Benefits :
- No development of bacterial contamination and mould
- Non-toxic, BPA-free

STEP 1: Preparation of the substrate **(see page 21)**

STEP 2: Treatment of singular points **(see page 22)**

STEP 3: Application of the PU Aqueux R primer

- Laying of the primer
  - Roller application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour



Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer-based, single component	**Density @25°C according to ISO2811**	1.16 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>110°C
Dry extract	100%	**Solvent-free**	Yes

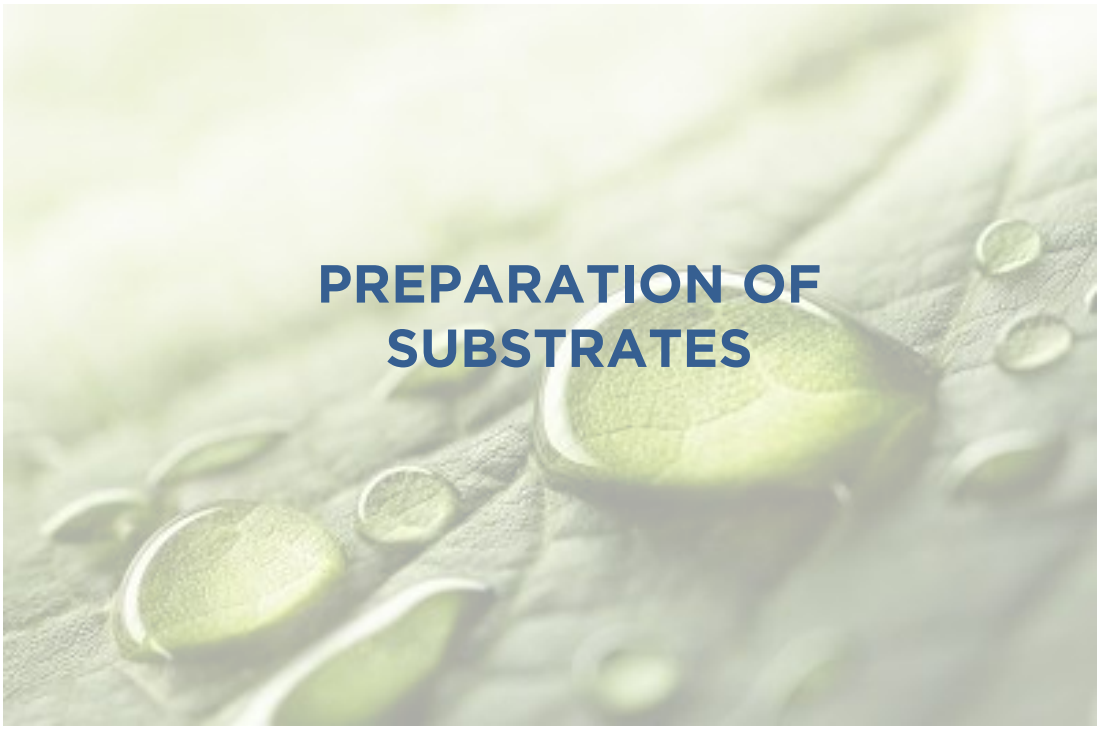
STEP 4: Application of SOUPLETHANE 5 resin

- Bottom: with a roller or notched comb, 2 mm application of SOUPLETHANE 5
- Walls: with a roller, 1.5 mm of SOUPLETHANE 5

Characteristics of Polyurea-Urethane Resin			
Chemical nature	2-component polyurea-urethane (aromatic) resin	**Mix Ratio**	Comp A / Comp B : 3/1 in volume
Composition	Component A – polyol : opaque coloured liquid Component B – isocyanate : transparent amber liquid	**Density @20°C of mixture A+B according to ISO2811**	1.3 g/ml
Dry extract	100%	**Colour**	On request
Compressive Strength	110 MPa	**Tensile Strength**	18 MPa
Elongation	150%		

STEP 5 : Finishing touches

- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat



PREPARATION OF SUBSTRATES

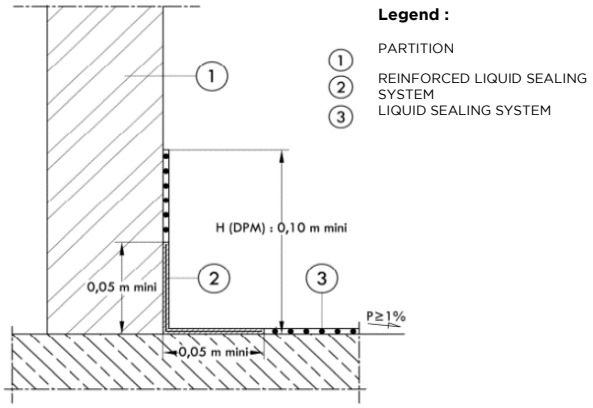
- On new concrete even, smooth, without roughness, poured since 28 days in accordance with DTU21 (France)
    - Shot blasting or grinding, dedusting or acid etching followed by rinsing and drying.

- On old concrete
    - Remove old coatings, crumbly parts.
    - Trim if necessary to obtain a flat, smooth surface without roughness.

- In the event of an uneven concrete surface: apply a rendering made by a KEMIPOX mortar (1 volume of KEMIPOX for 2 volumes of sand 0.4/0.8 mm) with a sand finishing of quartz with 0.4/0.8 mm granular size.


TREATMENT OF
SINGULAR POINTS

Upstands

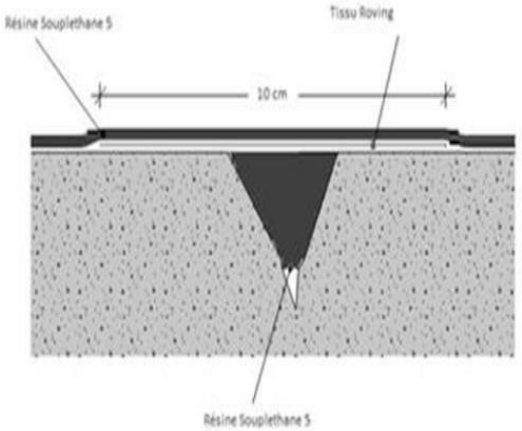


Careful sanding of concrete and dusting with a vacuum cleaner

Note: The minimum height of the stand is 100 mm

- Application of a strip of **KEMTEX** roving fabric (280 gr/m^2), impregnated and glued with SOUPLETHANE 5. The resin is overlapping the singular points in accordance with the CSTB Technical Assessment
- Unbubble the **KEMTEX** cloth with a roll of wool before applying the outer layer of **SOUPLETHANE**

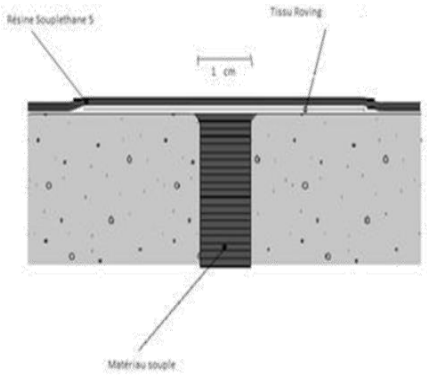
Existing cracks (no difference in level)



Careful grinding of concrete and dusting with a vacuum cleaner

- In case of microcracks smaller than 0.3 mm, no specific treatment is required due to the bridging capacity of the **SOUPLETHANE 5** resin
- In case of cracks between 0.3 and 0.8 mm, open the crack and carefully remove the dust with a vacuum cleaner and then fill the crack with SOUPLETHANE 5 **resin**. Cover the crack with a 10 cm wide Kemtex glass roving saturated with SOUPLETHANE 5 resin **- In case of cracks greater than 0.8 mm**, fill crack with a flexible PU joint. Cover the crack with a **10 cm wide KEMTEX glass roving** saturated with SOUPLETHANE 5 **resin.**

Splitting joint (no difference in level)



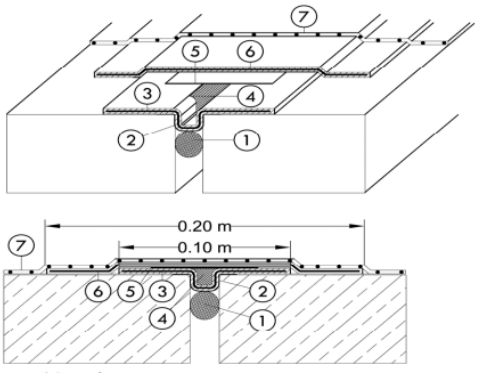
Careful sanding of concrete and dusting with a vacuum cleaner

Note: Splitting joints have an opening between 2 and 10 mm

Fill the joint with **SOUPLETHANE 5 PUTTY** (shore hardness A less than 70)

Cover the crack with the **10 cm wide** KEMTEX roving fabric glued with **SOUPLETHANE 5**

Expansion joint (no difference in level)



Careful sanding or grinding of concrete and dusting with a vacuum cleaner

Install the expanded foam joint in the joint, then glue a 150 mm wide PVC tape (600% elongation type) on both sides with epoxy glue. Put a layer of epoxy on top of the PVC tape and sprinkle with silica sand of a controlled size (0.4-0.8). Remove excess once cured.

Fill the cavity with **SOUPLETHANE 5 COR PUTTY**.

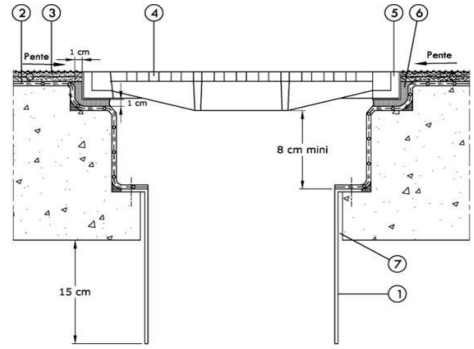
Cover the edges of the PVC tape with the **15 cm wide** KEMTEX ROVING glued with **SOUPLETHANE 5.**

Legend:

1. EXPANDED FOAM ROD
2. ADHESIVE TAPE USED AS FORMWORK
3. REINFORCED LIQUID SEALING SYSTEM
4. SOFT FILLING MATERIAL
5. POSSIBLE DESOLUDARISATION STRIP
6. REINFORCED LIQUID SEALING SYSTEM
7. LIQUID SEALING SYSTEM

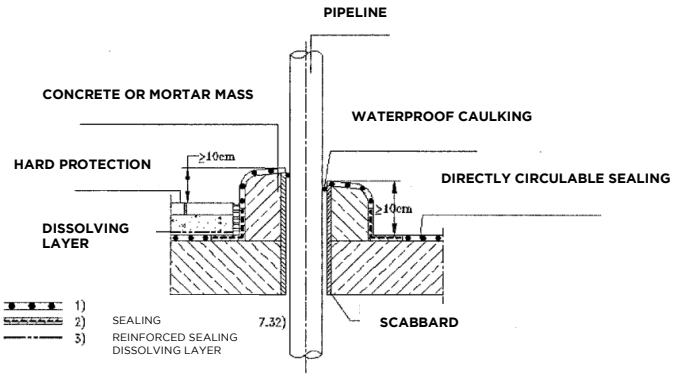
KEMICA COATINGS
Reinventing coatings

Traps

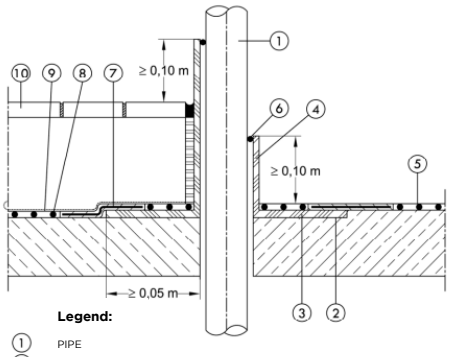


① STUM AND PLATE GLUED THEN MECHANICALLY
② LIQUID SEALING SYSTEM
③ WEARING COAT
④ GRID
⑤ LEGLESS FRAME
⑥ SEALING MORTAR
⑦ CLEARANCE = 0.025 M IN ACCORDANCE WITH DTU 20.12

Pipe passages
(on solid with duct)



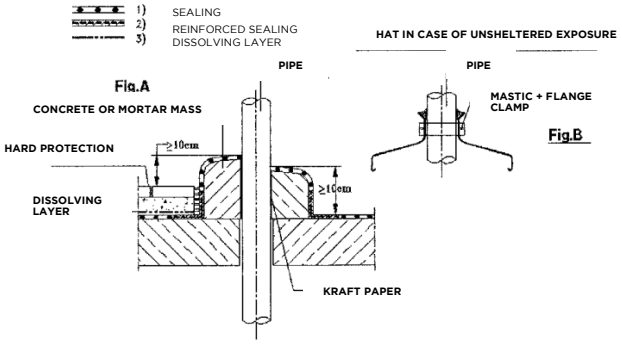
Pipe penetrations
(with metal plate and sleeve)



Legend:

① PIPE
② ENCLOSURE
③ FIXING TO THE GROUND BY GLUING AND MECHANICAL FIXING
④ SOLID PLATE AND METAL SLEEVE
⑤ DIRECTLY CIRCULABLE LIQUID SEALING SYSTEM
⑥ WATERPROOF CAULKING
⑦ REINFORCED LIQUID SEALING SYSTEM
⑧ LIQUID SEALING SYSTEM
⑨ DRAINING
⑩ SEALED TILES

Pipe penetrations
(on solid without duct)



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