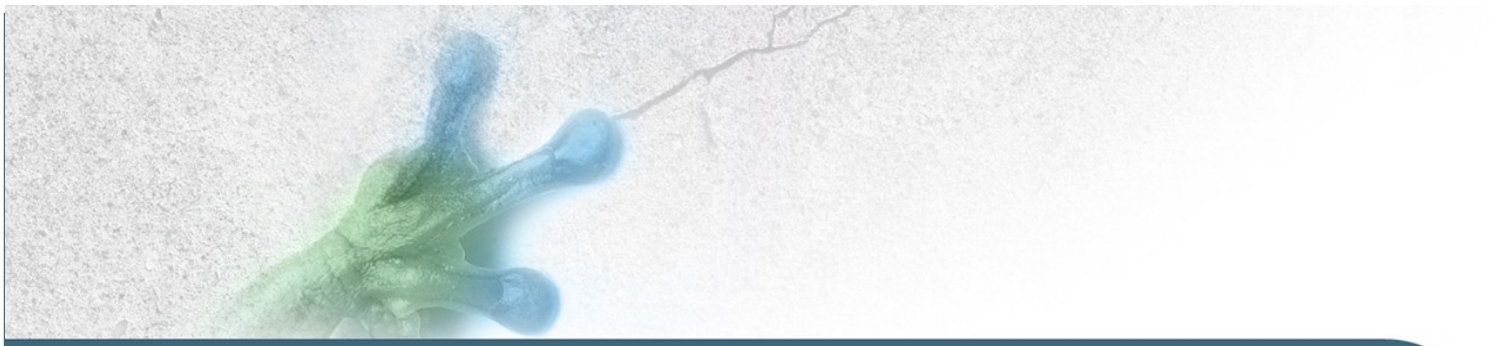


bio-based

sustainable

eco-friendly

Solutions for Hospitals

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 blemishes 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 5** is classified Bfl-S1, excellent fire rating for waterproofing memebranes.
- For high-rise buildings or establishments open to the public, **SOUPLETHANE 5** is available in a NON-FLAMMABLE version with an Eurofeu classification B–S2–D0 (**SOUPLETHANE 5 COR FRB**).

KEMICA COATINGS
Reinventing coatings

Summary

HOSPITAL REQUIREMENTS

The hospital is a complex set that brings together premises with various constraints. They must ensure the safety of both patients and hospital staff. Some premises need to be clad in floors, walls and ceilings with systems that meet the following requirements:

- **HYGIENE**
  - **HYGIENE**: absence of porosities which are breeding grounds for bacteria or contamination
  - **ANTI-DUST:** no fixation of dust which is a source of contamination of the substrate.
  - **CONTINUOUS AND SEAMLESS COATING:** (floors, walls and ceilings) absence of fixing contaminants in the joints,
  - **NON-TOXICITY OF THE COATING (FOOD):** requirement for pet shops in hospitals, and agri-food premises (dairies, nurseries, etc.)
  - **EASY TO CLEAN, MAINTAIN AND REPAIR**
- **PERFORMANCE**
  - **RESISTANCE TO CHEMICAL AGENTS:** products likely to come into contact with the coating can be chemically aggressive (formalin, iodine, various acids, bases, detergents, bleach, etc.)
  - **RESISTANCE TO THERMAL SHOCK:** hot water, steam (in case of sterilization of the substrate), etc.
  - **AIRTIGHTNESS AND GAS:** (oxygen, CO2, H2O, N2, etc.): the case of controlled atmosphere rooms
  - **WATERPROOFING:** to guarantee the containment of the room in the event of cracking (avoids the diffusion of contaminating products in the support or outside in the event of a cracked support)
- **RELIABILITY OF IMPLEMENTATION AND USE**
  - **NO EMISSION OF ORGANIC VAPOURS AND SOLVENTS DURING INSTALLATION:** during restoration work
  - **WEAR RESISTANCE**: Requirement for trolley circulation aisles floors.
  - **ANTI-SLIP POWER:** Requirement of walkway floors and pedestrian traffic
  - **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 or stainless-steel binders for example, prevents the proliferation of bacteria that nestle in the pores, which can be a cause of contamination of food liquids. Examples are known of non-compliance in the quality of drinking water, due to the development of bacteria on the concrete support of drinking water tanks (case of the city of LUGANO).

- **ANTI-DUST :**

SOUPLETHANE does not generate electrostatic charges after friction, thus not attracting contaminating dust from the atmosphere.

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

- Low natural susceptibility to cover 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 DRIPPINGS in a thick film on the horizontal, vertical or ceiling surface. The coating is continuous and seamless.

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

SOUPLETHANE has been tested by the laboratory of the City of Paris' water service for contact with drinking water and by the IANESCO laboratory in Poitiers for its inertia in contact with food products (oils, alcohols, fruit juices).

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

The **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 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 retention tanks, acid-resistant floors, and tanks storing chemicals.

- **RESISTANCE TO THERMAL SHOCK :**

SOUPLETHANE is resistant to :
- Hot liquids (e.g. hot water at 90°C): tested by the LCPC with thermal shocks of 140°C. - no change in the characteristics of **the SOUPLETHANE** after return to room temperature.
- With superheated steam: 160°C (test carried out by CEMETE in Aix-en-Provence) - no blisters or cracks, etc. - Good resistance of the coating that can withstand such thermal shocks.

- **AIR AND GAS TIGHTNESS :**

SOUPLETHANE is a vapour barrier and the diffusion of gases through the film is very slow.

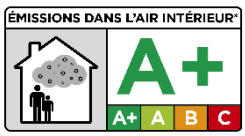
Example for the 1 mm film of **SOUPLETHANE**:
- Water vapour permeance 9 x 10^{-3} g/m2.24h.mm hg,
- Oxygen permeability 6 cm3/m^2. 24h.bar.

- **SEALING :**

In the event of cracking in the concrete substrate, the **SOUPLETHANE** can easily bridge cracks with an opening of 2 mm due 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 2 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 buildings.

- **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 in the coating of pedestrian walkways by sprinkling quartz, corundum or silica aggregates on the surface layer to meet this requirement**.**

- **FIRE RESISTANCE :**

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

100%

waterproofing
anticorrosion
non flammable
antifouling
antibacterial

0%

solvent
toxicity
VOC
BPA

KEMICA COATINGS
Reinventing coatings

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 WP

Solvent-free, two-component polyurea-urethane resin for waterproofing, corrosion protection (concrete and metal) and internal coatings of pipes, water towers and drinking water structures

Certificate of Sanitary Compliance
issued on 15/10/2021
N° 21 MAT NY 104

SOUPLETHANE 5E

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

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

Electrical conductivity $<10^6\Omega$

SOUPLETHANE 5N

Solvent-free, two-component polyurea-urethane resin for a liquid waterproofing, corrosion protection or decontaminable and radiation-resistant floor covering membrane for nuclear facilities.

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

Decontaminable
CEA class 1-4) and resistant to nuclear radiation

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 & REPORTS

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 : 1mm/min	18 MPa @23C 32MPa @-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	I3 @23°C I3 @60°C	CSTB
Dynamic Punch Shear Resistance	ETAG TR006	I3 @23°C I3 @60°C	CSTB
Abrasion resistance	EN ISO 5470-1 Taber22 Load 1,000 g	630mg/1000rotations	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 (10 000 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 de SHENYANG
Back pressure Tanking		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 USES AND TECHNICAL RECOMMENDATIONS

MEDICO-TECHNICAL PLATFORM

- OPERATING ROOMS AND ANESTHESIA ROOMS
- DIALYSIS ROOMS
- SWIMMING POOLS FOR TREATMENTS
- MORGUES

ACCOMMODATION

- SICK AND CARE ROOMS
- RESTAURANTS
- WATERPROOFING OF FLOORS AND WALLS OF DAMP PREMISES (SHOWERS, TOILETS)

TECHNICAL ROOMS

- ISOTOPE PITS
- KITCHENS
- LAUNDRIES
- TECHNICAL ROOMS

LOGISTICS

- MEDICATION STORAGE ROOMS
- FOOD STORAGE ROOMS
- DRINKING WATER TANKS

CIRCULATION

- CORRIDORS, STAIRS
- TERRACES, PASSAGEWAYS
- PARKINGS


MEDICO-TECHNICAL PLATFORM

KEMICA COATINGS
Reinventing coatings

Operating Rooms and Anesthesia Rooms

Flooring

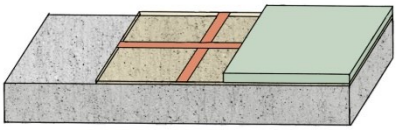
Benefits :
- Conductive floor – electrical conductivity <10^6 Ω
- Prevents bacterial growth
- Bio-based resin: negative fingerprint

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 or airless pump application
  - Consumption : approx. 150 g/m²
  - Drying in 1 hour



Characteristics of the primer			
Chemical nature	Moisture-curing, prepolymer-based, 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

- Cross-laying of earth-connected conductive copper braids on the primer (spacing between braids approx. 5 m)

STEP 4: Application of SOUPLETHANE 5E resin

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

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 liquidComponent 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%	**Electrical conductivity**	<10^6Ω

KEMICA COATINGS
Reinventing coatings

Dialysis Rooms

Flooring

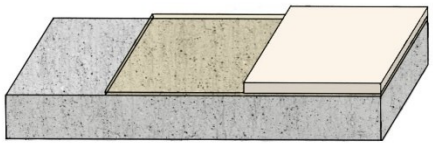
Benefits :
- Conductive floor – electrical conductivity <10^6 Ω
- Resistant to chemical aggression and demineralized water
- Bio-based resin : carbon fingerprint

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-based, 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

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

Variant with SOUPLETHANE 5 COR FRB with Fire rating : B-S2-D0

KEMICA COATINGS
Reinventing coatings

Swimming pools for treatments

Bottom and Walls

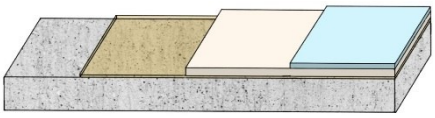
Benefits :
- No development of bacterial contamination and mould

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-based, 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 FLEXIBLETHANE 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
- Optional: non-slip by spraying on the wet resin of the floor POUDREC 400 or 600 µm and then a thin layer of closure in SOUPLETHANE 5

KEMICA COATINGS
Reinventing coatings

Morgues

Flooring

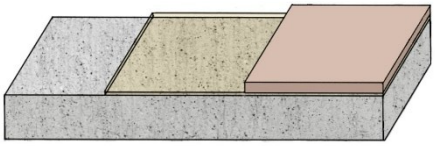
Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Bio-based resin : negative carbon fingerprint

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-based, 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

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

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0


ACCOMMODATION

Sick and treatment rooms

Flooring

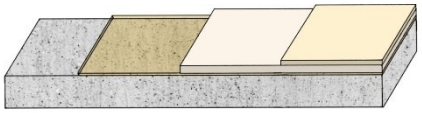
Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth and the risk of nosocomial diseases.
- Bio-based resin : carbon negative

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-based, 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

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

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

STEP 5 : Optional Finishes

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

-

KEMICA COATINGS
Reinventing coatings

Restaurant

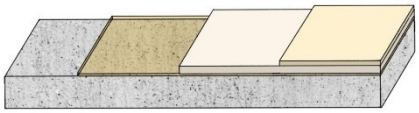
Flooring

Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Bio-based resin : negative carbon fingerprint

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-based, 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 or notched comb, apply 4 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%	**Fire Rating :**	Bfl-S1

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

STEP 5 : Finishing touches
- Anti-slip finish by spraying on wet resin POUDREC powder 400 or 600 µm
- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat

KEMICA COATINGS
Reinventing coatings

Waterproofing of floors and walls of premises exposed to water (showers, toilets)

Waterproofing under tiles

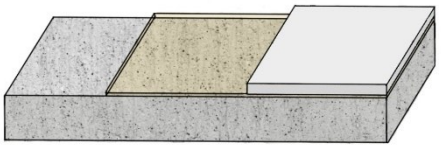
Benefits :
- Bio-based resin : negative carbon fingerprint

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-based, 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 or notched comb, apply 1.5 mm of SOUPLETHANE 5
  - Sealed tiles, waterproofing under screed: no additional protection required.
  - Glued tiles: laying a thin layer of resin on the waterproofing liquid membrane and dusting with dry sand (0.4 to 0.8mm)

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


TECHNICAL ROOMS

KEMICA COATINGS
Reinventing coatings

Isotope pits

Bottom and Walls

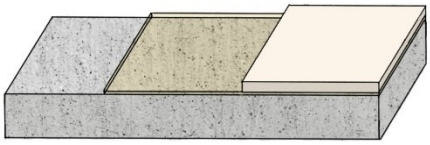
Benefits :
- Provides containment in the event of concrete cracking (cracks larger than 3 mm opening)

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-based, 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 N resin

- Base: with roller or notched comb, 2 mm application of SOUPLETHANE 5 N
- Walls: with a roll, 2 mm of SOUPLETHANE 5 N

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%		

Kitchens

Flooring

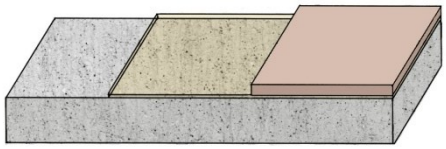
Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Performs the dual function of waterproofing and flooring – bridging cracks in concrete.
- Slippage μd= 0.51 (for minimum 0.3 required)

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-based, 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 or notched comb, apply 3 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%	**Fire Rating :**	Bfl-S1

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

KEMICA COATINGS
Reinventing coatings

Laundries

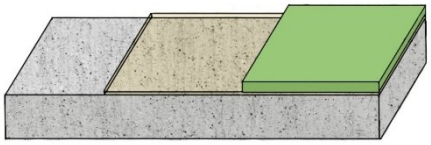
Flooring

Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Chemically resistant to cleaning agents
- Ensures waterproofing in case of cracking of the concrete (cracks with an opening of more than 3 mm)

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-based, 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 or notched comb, apply 3 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 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%	**Fire Rating :**	Bfl-S1

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

Technical rooms

Floor and wall coverings

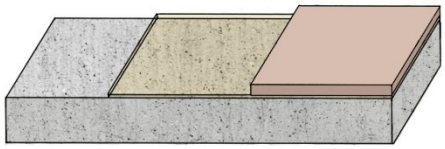
Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Ensures waterproofing in case of cracking of the concrete (cracks with an opening of more than 3 mm)

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-based, 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

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

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

STEP 5 : Optional Finishes

- Non-slip by spraying on the resin of POUDREC 400 or 600 µm and then a thin layer of closure in SOUPLETHANE 5
- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat


LOGISTICS

KEMICA COATINGS
Reinventing coatings

Medication storage rooms

Floor and wall coverings

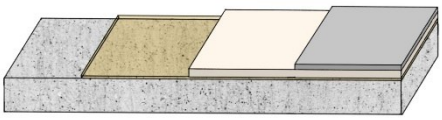
Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Provides waterproofing in case of concrete cracking.
- (cracks with an opening of more than 3 mm)

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-based, 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

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

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

STEP 5: Optional Finishes

- Non-slip by spraying on the resin of POUDREC 400 or 600 µm and then a thin layer of closure in SOUPLETHANE 5
- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat

KEMICA COATINGS
Reinventing coatings

Food storage rooms

Floor and wall coverings

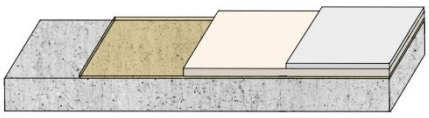
Benefits :
- Fire classification: Bfl-S1 (possibility Bfl-S2-D0)
- Prevents bacterial growth
- Ensures waterproofing in case of cracking of the concrete (cracks with an opening of more than 3 mm)

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-based, 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

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

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

STEP 5 : Optional Finishes

- Non-slip by spraying on the resin of POUDREC 400 or 600 µm and then a thin layer of closure in SOUPLETHANE 5
- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat

Drinking water tanks

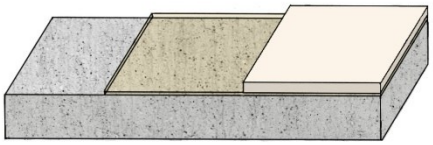
Sealing

Benefits :
- Health Compliance Certification (potable water)
- No growth of bacteria
- Ensures waterproofing in case of cracking of the concrete (cracks with an opening of more than 3 mm)

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

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

STEP 3 : Application of KEMIPOX primer



- Only if the structure is buried.
- If NO primary
- Laying OF the primer
  - Roller application
  - Consumption : approx. 250 g/m²
  - Drying in 12 hours at 20°C

Characteristics of the primer			
Chemical nature	2-component epoxy resin	**Density @25°C according to ISO2811**	1.4 g/ml
Aspect	Transparent Amber Liquid	**Flash Point**	>100°C
Dry extract	100%	**Solvent-free**	Yes

STEP 4: Application of SOUPLETHANE WP resin
- Bottom: with a roller or notched comb, 2 mm application of SOUPLETHANE WP
- Walls: with a roller, 2 mm of SOUPLETHANE WP

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**	1.35 g/ml
Dry extract	100%	**Colour**	Cream
Compressive Strength	>110 MPa	**Tensile Strength**	>18 MPa
Elongation	35%		


CIRCULATION

Traffic corridors - Stairs

Floor and wall coverings

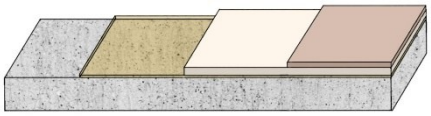
Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Bio-based resin : negative carbon fingerprint

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-based, 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

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%	**Fire Rating :**	Bfl-S1

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

STEP 5 : Finishes

- Optional: anti-slip by spraying on the resin 400 or 600 µm POUDREC powder
- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat

Terraces, Passageways

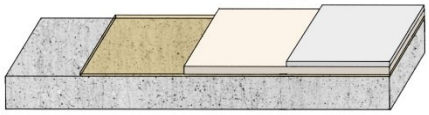
Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Bio-based resin: negative carbon fingerprint

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-based, 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

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

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

STEP 5 : Finishes

- Optional: Non-slip by spraying on the resin of POUDREC 400 or 600 µm followed by a thin layer of SOUPLETHANE 5 closure
- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat
- COOL ROOF effect depending on the shade used.

KEMICA COATINGS
Reinventing coatings

Parkings

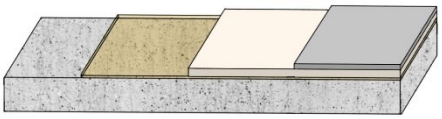
Floor and wall coverings

Benefits :
- Fire classification: Bfl-S1 (possibility B-S2-D0)
- Prevents bacterial growth
- Bio-based resin : negative carbon fingerprint

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-based, 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

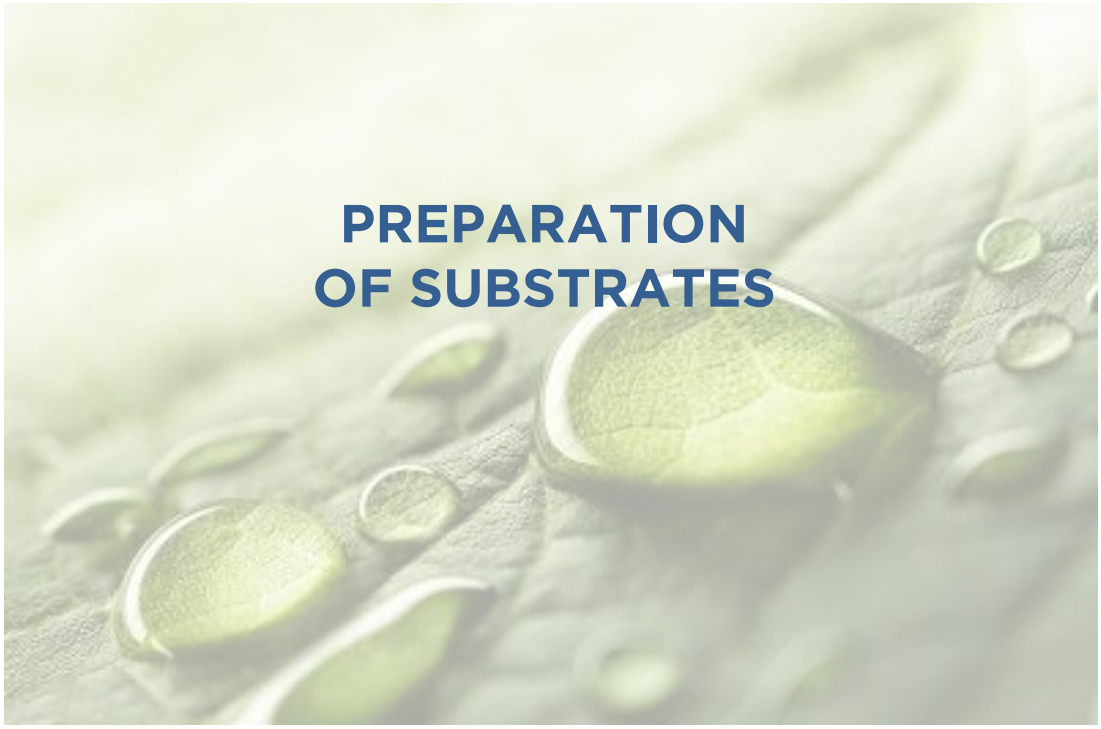
STEP 4: Application of SOUPLETHANE 5 resin
- Using a roller or notched comb, apply 3 mm (floors) and 2 mm (walls) of SOUPLETHANE 5

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%	**Fire Rating :**	Bfl-S1

Variant with SOUPLETHANE 5 COR FRB with Fire classification: B-S2-D0

STEP 5 : Optional Finishes
- Non-slip by spraying on the resin of POUDREC 400 or 600 µm and then a thin layer of closure in SOUPLETHANE 5
- Application of a coat of ALPIC (250 g/m²) for UV-stable topcoat

PREPARATION OF SUBSTRATES AND TREATMENT OF SINGULAR POINTS



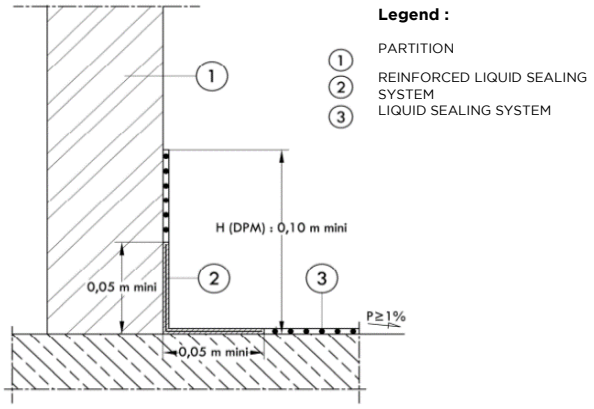
- On new concrete even, smooth, without roughness, poured since 28 days in accordance with DTU21 (France)
    - Shot blasting or grinding, dedusting or acid etching followed by rinsing and drying.

- 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

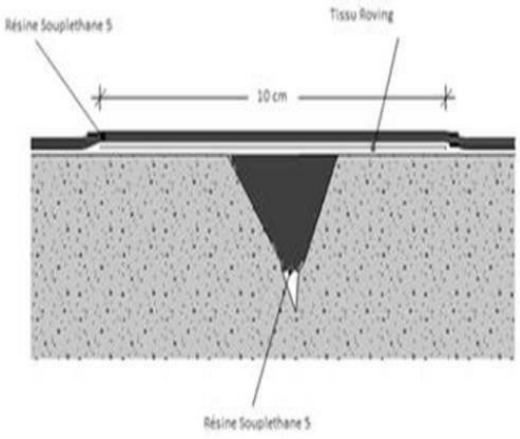


Careful sanding of concrete and dusting with a vacuum cleaner

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**

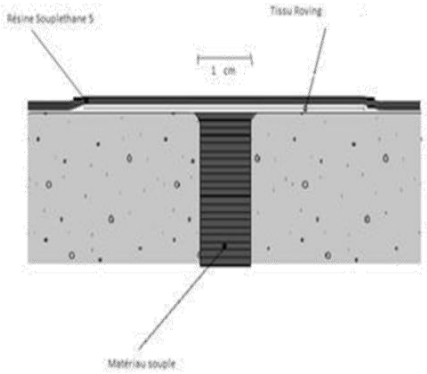
Existing cracks (no difference in level)



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)



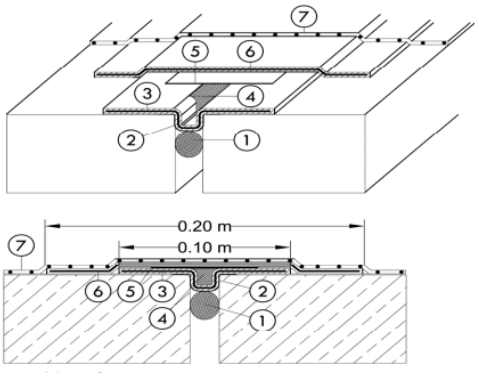
Careful sanding of concrete and dusting with a vacuum cleaner

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

Fill the joint with **SOUPLETHANE 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

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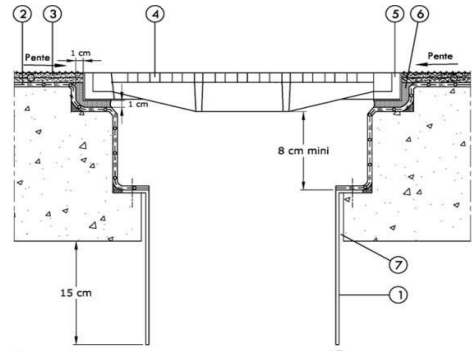
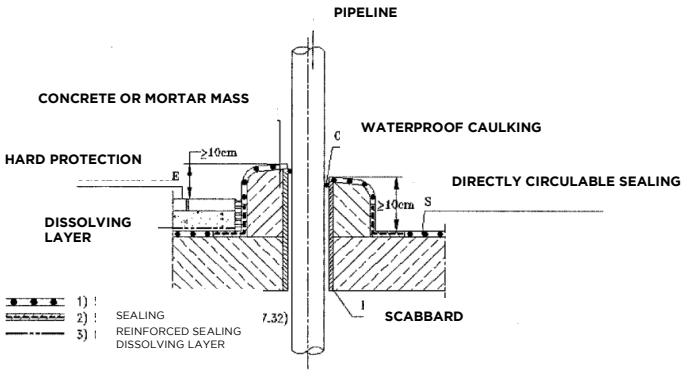
Traps

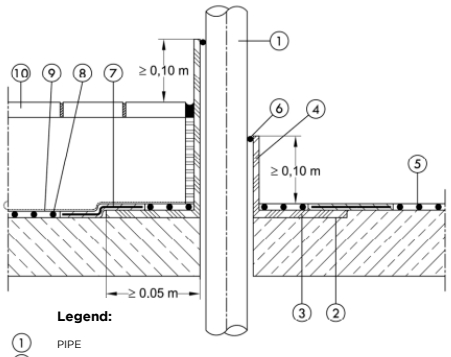


① STUM AND PLATE GLUED THEN MECHANICALLY
② LIQUID SEALING SYSTEM
③ WEARING COAT
④ GRID
⑤ LEGLESS FRAME
⑥ SEALING MORTAR
⑦ CLEARANCE = 0.025 M IN ACCORDANCE WITH DTU 20.12

Pipe passages
(on solid with duct)



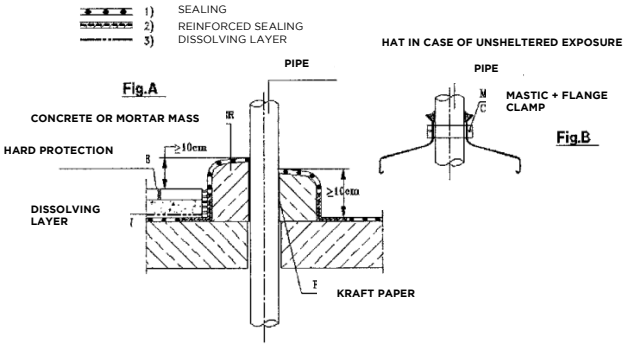
Pipe penetrations
(with metal plate and sleeve)



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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