

Technical Datasheet

SOUPLETHANE 5

Two-component, solvent-free, polyurea-urethane resin providing a continuous and with no microporosities liquid membrane for waterproofing, anti-corrosion protection or floor coating, applicable manually (brush, roller) or by spraying with airless spraying equipment.

Technical Evaluation by CSTB (Avis Technique) N° AT : 12/15-1704_v1

Application Fields

SOUPLETHANE 5 can be used on every substrate : concrete, wood, metal, PS, asphalt, bituminous membrane, PVC

BUILDING			CIVIL ENGINEERING INDUSTRY - MARITIME			
Accessible or not terracesTechnical localsParking terracesIntermediate flooBalconies, corridorsElevator pits			Works of engineering Bridges (concrete, wood, metal) Viaducts	Pools, Fountains Swimming pools Beaches of pools Buffers		
Metallic roofs, Gutte On thermal insulation		Foundations Bleachers	Tunnels (extrados) Pharmaceutical industry flooring	Ozonation tanks Agro-alimentary industrial flooring		
Characteristics						
Chemical Nature Composition Solvent-free Flash point Comp Colors : Crème-C	(aromatic) Component A Component E 100 % solid c conent A		t amber liquid (at 20°Ć)	Comp. A / Comp. B = 3 / 1 in volume Mixture A+B : 1.3 g / ml (<i>DIN 53217 / EN ISO 2811</i>) ance : Bfl-S1 212 °C hers upon request		
		Advant				
Excellent adhesion: Resistance to crack Resistance to therm Compression streng Excellent chemical r	ing concrete : al shocks and gth : > 110 MPa	5 mm hydrolysis : 90 ° C	Solvent-free, O Bisphenol A-fre Fast start-up tir Easy applicatio No chalking	e ne		
		Proper	rties			
Concrete adhesion		4 MPa (concrete failure) (NF EN 1542)	Shrinkage	0		
Steel adhesion		9 MPa (NF EN 1542)	Tensile strength	20 MPa (NF EN ISO 527-3)		
Service temperature	e (air)	- 50°C to + 160°C	Elongation	60 % (NF EN ISO 527-3)		
BfI-S1 Shore A Ha (NF EN 13501-1 + A1 :2013) Shore A Ha			Shore A Hardness	95 (ISO 868)		
Chemical resistance 1< pH<13			Compression strength	113 MPa		
Resistance to Rado compared to PVC	on gaz /	Attenuation Coeff. C1/C2 159 000 / 9	Chloride permeability	<10 coulombs (ASTM C 1202)		
Resistance to back	pressure	1 MPa	Service temperature (in immersion in water)	80°C		
Chemical attack du	e to concrete	No effect	Water permeability	No penetration (DIN 1048)		
Thermal shock resistance - 50 °C to + 160°C			Salt spray resistance	2 000 hours (ASTM B117 / D1654)		

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Packaging	in kits
5 kg	Pre-dosed Kit
35 kg	(20 L component A + 7 L component B)
104 kg	(3 x 20 L component A + 1 x 20 L component B)
1 042 kg	(3 x 200 L component A + 1 x 200 L component B)

Storage

From the date of manufacture and in original unopened packaging, under cover at more than 5 °C in a cool, ventilated place (frost free) Shelf life : 12 months

This product is used in accordance with the provisions of the Specifications, Technical Specifications, Technical Advice of the Company KEMICA COATINGS Z.A. du Bois Gueslin F-28630 Mignières • France



Implementation

			promontation					
Preparation of the mixture	Thoroughly homogenize the polyol (A) before mixing Mix the mixture Comp A + Comp B with a mechanical stirrer for 40 seconds Then pour the product into a second container and resume mixing for 10 seconds. To minimize the air entrainment during mixing, it is advisable to perform this operation at low rotation speed (approx. 400 rpm), taking care to keep the agitator at the bottom of the bucket during its rotation.							
Application	Check the humidity of the substrate, the relative humidity, the ambient temperature of the products and the substrates, and the dew point beforehand. If the humidity of the substrate is > 4%, the KEMIPOX or PU AQUEUX system can be used to form a barrier against ascending humidity.							
Substrate ter	nperature	-20°C min. / +70°C max.	Dew point : The to reduce the risk		3 ° C above the dew point			
Relative Hum	idity (RH)	< 95 %.		ngular points : acco	rding to the technical			
Roll or brush	application	1 mm / layer (1,3 kg/m²)	Spraying throug	h high-pressure 2-con	nponent airless pump			
Application v	with notched	Up to 4 kg/m ²	Viscosity (20°C)	Comp. A : 3 800 cps /	/ Comp. B : 150 cps			
			Temperature	Component A : 35°C	/ Component B : 20°C			
Thickness		1 to 3 mm	Pressure	180	/ 200 bars			
Covering tim	e at 20°C	mini 5 h / maxi 72h for flooring 1h vertically	Covering time	e 3 h				
Start-up time)	24 h	Start-up time	:	24h			
Pot life	Temperature	9	+ 10°C	+ 20°C	+ 30°C			
	Pot life		~ 30 minutes	~ 20 minutes	~10 minutes			
	The	pot life decreases as the	temperature and / o	or amount of prepared p	roduct increases.			
		Before application	of SOUPLETHANE	5 on KEMIPOX or PU A	QUEUX			
Covering	Temperature		+ 10°C	+ 20°C	+ 30°C			
time	Mini		24 hours	12 hours	8 hours			
	Maxi		4 days	2 days	1 days			
Drying /	Temperature	e	+ 10°C	+ 20°C	+ 30°C			
Start-up time	Light loads		30 hours	24 hours	12 hours			
	Full cure		15 days	9 days	7 days			
Т	hese data are	only indicative because t (temperature an	he curing time varie d relative humidity i		g conditions			
Cleaning tools	Tools are clear mechanically.				roduct can only be removed			
Notes on the application / limits	SOUPLETH/ Protect SOU Incorrect trea Beware of th which may le To avoid colo	ANE 5 PLETHANE 5 from contact atment of substrate defects be gas exchange that may be ad to a bubbling (blistering or differences, it is necessand of the coating under UV	t with moisture, cond will reduce the life or be caused by a warn phenomenon. It is n try to use a single lot	ensation and water for 2 f the coating. hing of the substrate befor recommended to work by number for each site.	ore the total polymerization down temperature.			
DTA N° 5.2/18-26 Fire resistance:	615-V1 / ETE-13 Bfl-S1	CHNIQUE) - CSTB N° AT :	alifications 12/15-1704_v1					

HQE A++ / Class A+ : Regulatory Labeling of VOC Emissions and Compliance with the AgBB Protocol (2012)



SOUPLETHANE 5 ATE

Solvent-free, two-component polyurea-urethane resin that provides a liquid waterproofing and corrosion protection membrane for roofing applications.

Technical Evaluation by CSTB (Avis Technique) / ETE-13/0156 - DTA N° 5.2/18-2615_V1

EUROPEAN CLASSIFICATION OF FIRE REACTION : Broof (t1)

Application Fields

SOUPLETHANE 5 ATE is used on all type of substrates: concrete, wood, insulating materials, metal, asphalt, bituminous membrane, tiles

External / Apparent use - New and refurbishment works - Liquid wtarproofing of:

□ inaccessible flat roofs □ accessible roof terraces □ technical flat roofs

 $\hfill\square$ Balconies, loggias, corridors, bleachers, for private or public use

Characteristics

Chemical Nature Composition	2-Component Polyurea-urethane resin (aromatic) Component A - polyol : Colored opaque liquid Component B – isocyanate : Transparent amber liquid	Mixing ratio Density (at 20°C)	Comp. A / Comp. B = 3 / 1 in volume Mixture A+B : 1.3 g / ml (DIN 53217 / EN ISO 2811)			
Solvent-free	100 % solid content (ISO 1515)	Bisphend	ol A-free			
Flash point Component A248 °CFlash point Component B212 °C						
Colors : Crème-Cream (Ivory, prox. Ral1015), gris-grey (prox. Ral 7040) – Others upon request						

Advantages

Double function: Waterproofing and AnticorrosionOn new substrates and during renovation on existing waterproofing system
Excellent adhesion: 4 MPa (concrete) / 9 MPa (metal)High resistance to cracking (> to 4 mm)Bisphenol A-free
Solvent-free, Odor-free
No chalking

Properties

	Порс	1100	
Concrete adhesion	4 MPa (concrete failure) (NF EN 1542)	Shrinkage	0
Steel adhesion	9 MPa (NF EN 1542)	Tensile strength	>12 MPa (NF EN ISO 527-3)
Service temperature (air)	Air : - 20°C à + 80°C Backwater : max 60°C	Elongation	40 % (NF EN ISO 527-3)
Fire resistance	Broof (t1) (NF EN 13501-5 :2016)	Shore A Hardness	95 (ISO 868)
Chemical resistance	1< pH<13	Compression strength	113 MPa
Water permeability	No penetration (DIN 1048)	Chloride permeability	<10 coulombs (ASTM C 1202)
Chemical attack due to concrete	No effect	Salt spray resistance	2 000 hours (ASTM B117 / D1654)
Thermal shock resistance	- 50 °C to + 160°C		

Pack	aging	in kits
5	kg	Pre-dosed Kit
35	kg	(20 L component A + 7 L component B)
104	kg	(3 x 20 L component A + 1 x 20 L component B)
1 042	kg	(3 x 200 L component A + 1 x 200 L component B)

Storage

From the date of manufacture and in original unopened packaging, under cover at more than 5 °C in a cool, ventilated place (frost free) Shelf life : 12 months

This product is used in accordance with the provisions of the Specifications, Technical Specifications, Technical Advice of the Company KEMICA COATINGS Z.A. du Bois Gueslin F-28630 Mignières • France



				Im	plementati	on	
Preparation of the mixture intermixed (A) before mixing Mix the mixture Comp A + Comp B with a mechanical stirrer for 40 seconds Then pour the product into a second container and resume mixing for 10 seconds. To minimize the air entrainment during mixing, it is advisable to perform this operation at low rotation speed (approx. 400 rpm), taking care to keep the agitator at the bottom of the bucket during its rotation.							
Application	pplication Check the humidity of the substrate, the relative humidity, the ambient temperature of the products and the substrates, and the dew point beforehand. If the humidity of the substrate is > 4%, the KEMIPOX or PU AQUEUX system can be used to form a barrier against ascending humidity. If an adhesion higher than 9 MPa is desired, Souplethane UR5 is recommended as an adhesion promoter (primer).						
Substrate		-2	20°C min. / +70°C ma	х.		The substrate must be at +	3 ° C above the dew point
temperature Relative Hu		<	95 %.			e risk of condensation. of singular points : acc	ording to the technical
(RH)						nt (Avis Technique)	
Roll or brush	applicatio	on	1 mm / layer (1,3 kg/m²)	Sp	oraying throug	h high-pressure 2-compon	ent airless pump
Application w comb	ith notche	ed	Up to 2 kg/m ²	Vi	scosity (20°C)	Comp. A : 3 800 cps / Con	np. B : 150 cps
				Те	mperature	Component A : 35°C / Co	mponent B : 20°C
Thickness			1 to 3 mm	Pr	essure	180 / 200) bars
Covering time	at 20°C		mini 5 h maxi 72h	Co	covering time mini 5 h maxi 72h		
Start-up time			24 h	St	art-up time	24h	
Pot life	Temper	atur	е		+ 10°C	+ 20°C	+ 30°C
	Pot life				~ 30 minutes	~ 20 minutes	~10 minutes
		The	pot life decreases as	the	temperature an	d / or amount of prepared pr	oduct increases.
. .	Before application of SOUPLETHANE 5ATE on KEMIPOX or PU AQUEUX						
Covering time	Temper	atur	e		+ 10°C	+ 20°C	+ 30°C
line	Mini				24 hours	12 hours	8 hours
Dentin er (Maxi				4 days	2 days	1 days
Drying / Start-up time	Temper		e		+ 10°C	+ 20°C	+ 30°C
	Light loa				30 hours	24 hours	12 hours
т	Full cure		only indicative becau	ico t	15 days	9 days varies according to the drying	7 days
1	nese uala	are			•	lity in particular)	y conditions
Tools cleaning	mechanica	ally.	ned with acetone or M	EK ir	mmediately after	use. In the cured state, the pr	·
Notes on the applicatior / limits	SOUPLI Protect 3 Incorrec Beware which m To avoid	ETH SOL t tre of th ay le d col	ANE 5 ATE JPLETHANE 5 ATE fro atment of substrate de ne gas exchange that r ead to a bubbling (blist lor differences, it is nec e of the coating under	om co fects nay l ering cessa	ontact with moist will reduce the be caused by a phenomenon. ary to use a singl	densation during the applicat ure, condensation and water f ife of the coating. warming of the substrate befo It is recommended to work by e lot number for each site. or or appearance, but withou	or 2 hours re the total polymerization down temperature.
Qualifications Technical Evaluation (CSTB) / ETE-13/0156 - DTA N° 5.2/18-2615_V1 EUROPEAN CLASSIFICATION OF FIRE REACTION : Broof (t1) HQE A++ / Class A+ : Regulatory Labeling of VOC Emissions and Compliance with the AgBB Protocol (2012)							

This product is used in accordance with the provisions of the Specifications, Technical Specifications, Technical Advice of the Company KEMICA COATINGS Z.A. du Bois Gueslin F-28630 Mignières • France



SOUPLETHANE FLOOR

Two-component, solvent-free, polyurethane resin providing a continuous and with no microporosities liquid membrane for floor coating,

Application Fields

SOUPLETHANE FLOOR can be used with or without primer on concrete for a continuous floor coating. Crack resistant and durable.

Characteristics					
Chemical Nature Composition	(aromatic) Component A -	polyurethane res	baque liquid	Mixing ratio Density	Comp. A / Comp. B = 3 / 1 in volume Mixture A+B : 1.4 g / ml
Solvent-free Flash point co Colors : Crème	100 % solid co mponent A	ontent (ISO 1515 >200 °C	Flash point com	•	(DIN 53217 / EN ISO 2811) DI A-free 220 °C red – Others upon request

Advantages

Excellent adhesion to concrete without preparation	on and without primer
Solvent-free / Odor-free	Bisphenol A-free
Self-levelling	Fast start-up time
Longer pot life and working window	No chalking
Economical solution	Easy application

Properties

Adhesion to concrete without preparation and without primer	2.4 MPa (concrete failure) (NF EN 1542)	Shrinkage	0
Elongation	20 %	Tensile strength	20 MPa (NF EN ISO 527-3)
Hardness of self-levelling system (3-component)	80 Shore D	Hardness (14 days)	100 Shore A 70 Shore D
Chemical resistance	1< pH<13	Chemical attack due to concrete	No effect

Packaging (predosed kits)				
38.6 kg	pails (Kit 1 pail A : 30 kg + 1 pail B : 8.6 kg)			
115 kg	pails (Kit 3 pail A : 90 kg + 1 pail B : 25 kg)			
1 150 kg	drums (Kit 3 drums A : 900 kg + 1 drum B : 250 kg)			

Storage

From the date of manufacture and in original unopened packaging, under cover at more than 5 °C in a cool, ventilated place (frost free) Shelf life : 12 months



			Imp	lementatio	on		
Preparation o mixture	f the	Thoroughly homogenize the polyol (A) before mixing Mix the mixture Comp A Comp B with a mechanical stirrer for 40 seconds Then pour the product into a seco container and resume mixing for 10 seconds. To minimize the air entrainment duri mixing, it is advisable to perform this operation at low rotation speed (approx. 400 rpn taking care to keep the agitator at the bottom of the bucket during its rotation.					the product into a second the air entrainment during speed (approx. 400 rpm),
Application		The substrate must be clean, dry, free from all traces of grease and/or dust. New or old concrete must be prepared accordingly. Check the humidity of the substrate, the relative humidity, the ambient temperature of the products and the substrates, and the dew point beforehand. If the humidity of the substrate is > 4%, the KEMIPOX or PU AQUEUX system can be used to form a barrier against ascending humidity.					
Substrate tem	perature	from 0°C to	o 50°C			e substrate must l uce the risk of cor	be at + 3 ° C above the
Relative Hum	idity (RH)	< 95 %			.0 100		
Main layer : with notche squeege			Con			ANE FLOOR : <g m<sup="">2 (1 mm = 1.4</g>	↓ kg/m²)
Self-levelling system : Application with a notched comb		(Consu System SC	2 mm thic density : 2 imption: 2. DUPLETH .5 mm thic density : 1	LETHANE FLOOR A : n thickness ity : 2.1 kg/l on: 2.1 kg/m²/mm)3-Component system : 1 kit de 38.6 kg + 75 kg (3 bags of 25 kg) calibrated quartz 0,1/0,5LETHANE FLOOR B : ity : 1.9 kg/l on : 1.9 kg/m²/mm)3-Component system : 1 kit de 38.6 kg + 50 kg (2 bags of 25 kg) calibrated quartz 0,1/0,5			+ 75 kg (3 bags of 25 kg) ed quartz 0,1/0,5 oonent system : + 50 kg (2 bags of 25 kg)
Covering tin	ne at 20°C	4 h					
Start-up time	e		24 h				
Pot life						+ 20°C ~ 50 minutes	
a .	Temperatu	re	+ ′	10°C		+ 20°C	+ 30°C
Covering time	Mini		24	hours		5 hours	4 hours
time	Maxi		4 (days		2 days	1 day
Drying /	Temperatu	re	+ ′	10°C		+ 20°C	+ 30°C
Start-up time	Light loads		30	hours		24 hours	12 hours
Durcissement comple				days		9 days	7 days
The	ese data are o			e curing time v relative humid		according to the dry particular)	ing conditions
	Tools are cle can only be r				ately	after use. In the c	ured state, the product

- Substrates should not be under water pressure or condensation during the application and polymerization of SOUPLETHANE FLOOR.
- Protect SOUPLETHANE FLOOR from contact with moisture, condensation and water for 2 hours.
- **Notes on** Incorrect treatment of substrate defects will reduce the life of the coating.
- the application Beware of the gas exchange that may be caused by a warming of the substrate before the total polymerization which may lead to a bubbling (blistering) phenomenon. It is recommended to work by down temperature.
 - To avoid color differences, it is necessary to use a single lot number for each site.
 - An exposure of the coating under UV may alter its color or appearance, but without impairing its mechanical performance.



SOUPLETHANE WP

Solvent-free 2-component polyurea-urethane resin for waterproofing, anticorrosive protection (concrete and metal), internal linings of pipes, water towers and other structures that contain potable water.

Certificate of Sanitary Conformity issued on 16/12/2015 - N° 15 MAT NY 154

Application Fields

SOUPLETHANE WP is used on any concrete or metal substrate: potable water storage tank, pipelines, equipment immersed in potable water (pumps, ladders, etc ...)

INFRASTRUCTURES	INDUSTRY			
Storage tanks for potable water / water towers	Food industry equipment			
Potable water pipes				
Characteristics				

Chemical Nature	2-Component (aromatic)	polyurethane resir	١	Mixing ratio	Comp. A / Comp. B = 3 / 1 in volume
Composition		- polyol : Colored (– isocyanate : Tra	opaque liquid nsparent amber liquid	Density (at 20°C)	Mixture A+B : 1.35 g / ml (DIN 53217 / EN ISO 2811)
Solvent-free	100 % solid co	ontent (ISO 1515)		Bisphenol	
Flash point con	nponent A	229 °C	Flash point compo	onent B	220 °C
Colors : Crème-	Cream (Ivory, pro	ox. Ral1015)			

Advantages

	Bisphénol A -	free
Excellent adhesion : 3 MPa on	concrete / 9 MPa on metal	Without solvent, no
Resistant to thermal shocks an	d hydrolisis : 90°C	Fast start-up time
Compression strength : > 110 l	MPa	Easy application
Chemical resistance / no bacte	rial development	No chalking

Properties					
Concrete adhesion	3 MPa (concrete failure) (NF EN 1542)	Shrinkage	0		
Metal adhesion	9 MPa (NF EN 1542)	Tensile strength	20 MPa		
Service temperature (air)	- 40°C to + 100°C	Elongation	35 %		
Service temperature (under water immersion)	80°C	Hardness shore A	95 (ISO 868)		
Thermal shocks resistance	- 50 °C to + 120°C	Chloride permeability	<10 coulombs (ASTM C 1202)		
Compression strength	113 MPa	Water permeability	No penetration (DIN 1048)		
Resistance to back pressure	1 MPa	Salt spray resistance	2 000 hours (ASTM B117 / D1654)		

Chemical resistance 1< pH<13

Pack	aging	In pre-dosed kits
Manual application version	Mecanical application version	
36 kg	37 kg	(20 L component A + 7 L component B)
107 kg	109 kg	(3 x 20 L component A + 1 x 20 L component B)
1072 kg	1090 kg	(3 x 200 L component A + 1 x 200 L component B)

Storage

no odor

From the date of manufacture and in original unopened packaging, under cover at more than 5 °C in a cool, ventilated place (frost free) Shelf life : 12 months

This product is used in accordance with the provisions of the Specifications, Technical Specifications, Technical Advice of the Company KEMICA COATINGS Z.A. du Bois Gueslin F-28630 Mignières • France



Implementation						
Preparation of the mixture (for manual version)	B with a mechanical container and resume mixing, it is advisable	■ Thoroughly homogenize the polyol (A) before mixing ■ Mix the mixture Comp A + Comp B with a mechanical stirrer for 40 seconds ■ Then pour the product into a second container and resume mixing for 10 seconds. ■ To minimize the air entrainment during mixing, it is advisable to perform this operation at low rotation speed (approx. 400 rpm), taking care to keep the agitator at the bottom of the bucket during its rotation.				
Application	The substrate must be clean, dry, free from all traces of grease and/or dust. New or ol concrete must be prepared accordingly. Check the humidity of the substrate, the relative humidity, the ambient temperature of th products and the substrates, and the dew point beforehand.					
			point : The substrate must be at + 3 ° C above the point to reduce the risk of condensation.			
Relative Humidity (RH) < 95 %						
Manual application vers	ion	Mecanical application version (with airless bi-component HP pump)				
Pot life (20°C)	30 min	Pot life (20°C)	2.5 min			
Roller or brush application	0.2 mm per layer (0,3 kg/m²)	Viscosity	Component A : 3 800 cps (30°C) Component B : 150 cps (20°C)			
Application with a notched comb	Up to 4 kg/m ²	Temperature	Component A: 30-35°C / Component B: 20°C			
Thickness	1 to 3 mm	Pressure	180 / 200 bars			
Covering time at 20°C	5 h for flooring 1h in verticall	Covering time	3 h			

	Manual Application version					
Pot life	Temperature	+ 10°C	+ 20°C	+ 30°C		
Folme	Pot life	~ 40 minutes	~ 30 minutes	~15 minutes		
	The pot life decrea	ases as the temperature ar	nd / or amount of prepared	I product increases		
	Temperature	+ 10°C	+ 20°C	+ 30°C		
Drying / Start-up time	Light loads	30 hours	24 hours	12 hours		
	Full cure	15 days	9 days	7 days		
The	These data are only indicative because the curing time varies according to the drying conditions					

(temperature and relative humidity in particular)

Cleaning Tools are cleaned with acetone or MEK immediately after use. In the cured state, the product can only be removed mechanically. tools

> Substrates should not be under water pressure or condensation during the application and polymerization of SOUPLETHANE WP.

- Protect SOUPLETHANE WP from contact with moisture, condensation and water for 2 hours.
- Incorrect treatment of substrate defects will reduce the life of the coating.

the application Beware of the gas exchange that may be caused by a warming of the substrate before the total Notes on polymerization which may lead to a bubbling (blistering) phenomenon. It is recommended to work by / limits down temperature.

- To avoid color differences, it is necessary to use a single lot number for each site.
- An exposure of the coating under UV may alter its color or appearance, but without impairing its mechanical performance.

Qualifications

Certificate of Sanitary Conformity issued on 16/12/2015 - N° 15 MAT NY 154 HQE A++ / Class A+ : Regulatory Labeling of VOC Emissions and Compliance with the AgBB Protocol (2012)

This product is used in accordance with the provisions of the Specifications, Technical Specifications, Technical Advice of the Company KEMICA COATINGS Z.A. du Bois Gueslin F-28630 Mignières • France



SOUPLETHANE 5 COR FRB M1

NON-FLAMMABLE 2-component polyurea-urethane resin, solvent-free, for waterproofing, anticorrosion protection (concrete and metal) and protection against chemical attack (acid or base). Easily decontaminatable.

FIRE CLASSIFICATION FOLLOWING THE EUROPEAN STANDARD NF EN 13501-1 : B-s2, d0

Application Fields

SOUPLETHANE 5 COR FRB M1 is used on any substrate: steel, alloy, concrete, fiber concrete, plaster, wood, etc.

Non-flammable coating for flooring, chemical retentions, concrete or steel tanks, pipes, various metal structures, tunnel walls.

□ Non-flammable anti-corrosion protection in the chemical, pharmaceutical, agricultural and sewage treatment plants.

		Chara	acteristics		
Chemical Nature	2-Component Polyu (aromatic)	irea-urethane res	sin	Mixing ratio	Comp. A / Comp. B = 3 / 1 in volume
Composition	Component A - polyol : Colored opaque liquid Component B – isocyanate : Transparent amber liquid			Density (at 20°C)	Mixture A+B : 1.43 g / ml (DIN 53217 / EN ISO 2811)
Solvent-free	100% solid content (ISO 1515)				
Flash point co Colors : Crème-(mponent A > 20 Cream (Ivory, prox. Ra		Flash point compo (prox. Ral 7040)	onent B	220 °C
		A 1.			

Advantages						
Non-flammable coating, Fire classification : B-s2, d0						
Excellent adhesion : 3 MPa on concrete / 9 MPa on metal	Solvent-free, Odor-free					
Resistance to thermal shocks and to hydrolysis : 90°C	Fast start-up time					
Compression strength : > 110 MPa	Easy application					
Excellent chemical resistance (pH range: 1 to 13)	No chalking					

Properties

Concrete adhesion	3 MPa (concrete failure) (NF EN 1542)	Shrinkage	0	
Steel adhesion	9 MPa (NF EN 1542)	Tensile strength	22 MPa (NF EN ISO 527-3)	
Service temperature (air)	- 20°C to + 100°C	Elongation	25 % (NF EN ISO 527-3)	
Service temperature (in immersion in water)	80°C max	Shore D Hardness	72 (ISO 868)	
Thermal shock resistance	- 50 °C to + 120°C	Chloride permeability	<10 coulombs (ASTM C 1202)	
Compression strength	113 MPa	Water permeability	No penetration (DIN 1048)	
Resistance to back pressure	1 MPa	Salt spray resistance	2 000 hours (ASTM B117 / D1654)	
			I	

Chemical resistance 1< pH<13

Packaging	in kits
38.6 kg	(20 L component A + 7 L component B)
115.0 kg	(3 x 20 L component A + 1 x 20 L component B)
1 150.0 kg	(3 x 200 L component A + 1 x 200 L component B)

Storage

From the date of manufacture and in original unopened packaging, under cover at more than 5 °C in a cool, ventilated place (frost free) Shelf life : 12 months



Implementation							
Preparation of the mixture (for manual version)	ture 10 seconds. To minimize the air entrainment during mixing, it is advisable to perform this operation at						
Application	ApplicationCheck the humidity of the substrate, the relative humidity, the ambient temperature of the products and the substrates, and the dew point beforehand. If the humidity of the substrate is > 4%, the KEMIPOX or PU AQUEUX system can be used to form a barrier against ascending humidity.						
Substrate tem	Substrate temperature -20°C min. / +70°C max. Dew point : The substrate must be at + 3 ° C above the dew point to reduce the risk of condensation.						
Relative Humi	dity (RH)	< 95 %.	to reduce the lisk	or condensation.			
Manual Versi	on		Machine Versio (Spraying through	on Jh high-pressure 2-com	ponent airless pump)		
Pot life (20°C)		20 min	Pot life (20°C)	1.5 min			
Roller or brus application	h	0.4 mm / layer (0,35 kg/m²)	Viscosity (20°C)	Comp. A : 6 000 cps /	Comp. B : 150 cps		
Application w comb	ith notched	Up to 4 kg/m ²	Temperature	Comp. A : 30-35°C / C	omp. A : 30-35°C / Comp. B : 20°C		
Thickness		1 to 3 mm	Pressure	180 /	200 bars		
Covering time (20°C) mini 5 h / maxi 7 flooring 1h vertically			Covering time (20°C)	3 h			
	В	fore application of SOUPLETHANE 5 COR FRB M1 on KEMIPOX or PU AQUEUX					
Covering time	Temperature	9	+ 10°C	+ 20°C	+ 30°C		
time	Mini		24 hours	12 hours	8 hours		
	Maxi		4 days	2 days	1 day		
Pot Life			Manual Ver				
	Temperature)	+ 10°C	+ 20°C	+ 30°C		
	Pot-life		~ 25 minutes	~ 20 minutes	~12 minutes		
Durvin or (pot life decreases as the					
Drying / Start-up time	Temperature	9	+ 10°C	+ 20°C	+ 30°C		
otart-up time	Light loads		30 hours	24 hours	12 hours		
	Full cure		15 days	9 days	7 days		
In	ese data are	only indicative because the compensature and	ne curing time varie d relative humidity ir		conditions		
Tools	ools are clea	ned with acetone or MEK			ne product can only be		
	emoved mecl						
 Substrates should not be under water pressure or condensation during the application and polymerization of SOUPLETHANE 5 COR FRB M1 Protect SOUPLETHANE 5 COR FRB M1 from contact with moisture, condensation and water for 2 hours Incorrect treatment of substrate defects will reduce the life of the coating. Beware of the gas exchange that may be caused by a warming of the substrate before the total polymerization which may lead to a bubbling (blistering) phenomenon. It is recommended to work by down temperature. To avoid color differences, it is necessary to use a single lot number for each site. An exposure of the coating under UV may alter its color or appearance, but without impairing its mechanical performance. 							

Qualifications

FIRE CLASSIFICATION FOLLOWING THE EUROPEAN STANDARD NF EN 13501-1 : <u>B-s2, d0</u> (CSTB, n° RA08-0460) Class A+ : Regulatory Labeling of VOC Emissions and Compliance with the AgBB Protocol (2012)



SOUPLETHANE 5 COR

Anticorrosion protection coating, based on a polyurea-urethane resin, solvent-free, presenting high chemical and mechanical resistance (Liquid Waterproofing System).

Application Fields

□ Abrasion-resistant protective coating intended for the protection of structures in the presence of high chemical attack on any substrate (eg concrete, mortar, epoxy mortar, etc.).

□ Protective coating for reservoirs and chemical storage tanks, hoppers, silos, chemical reactors and retentions.

□ Corrosion protection in the chemical, pharmaceutical, agricultural and sewage / waste water treatment plants.

□ Can be reinforced with 2D glass fabric to resist cracking of storage tanks and retentions.

Characteristics

Chemical	2-Component Polyurea-urethane resin (aromatic)	Mixing	Comp. A / Comp. B
Nature :		ratio :	= 2 / 1 in volume
Composition :	Component A - polyol : Colored opaque liquid	Density:	Mixture A+B : 1.1 g / ml
	Component B – isocyanate : Transparent amber liquid	(at 20°C)	(<i>DIN 53217 / EN ISO 2811</i>)
Solvent-free	100 % solid content (ISO 1515)	Bisphenol A	-free
Colors : Crème-Cre	eam (Ivory, prox. Ral1015), gris-grey (prox. Ral 7040)		

Advantages						
Excellent resistance to chemical agents (pH 1 to 14) please refer to chemical resistance chart (Appendix)	Solvent-free, Odor-free					
Very good mechanical resistance Mechanical shock resistance (tests CSTB)	Bisphenol A-free					
Thermal shock resistance: from -50°C to +120°C	Fast start-up time					
Resistance to concrete cracking: bridging of concret	e cracking of 4.9 mm					
No Bacteria Development	Easy application					

Properties

Chemica	I resistance	Thermal resistance					
Corrosion resistance	pH from 1 to 14	Thermal shock resistance	from -50 °C to + 120°C				
please refer to chemical resistance chart (Appendix)							
	Mechan	ical properties					
Shore D Hardness	72 (ISO 868)	Tensile strength	22 MPa (EN ISO 5470-1)				
Concrete adhesion	3.5 MPa (concrete failure) (NF EN 1542)	Elongation	65 %				
Steel adhesion	7 MPa (NF EN 1542)	Compression strength	113 MPa				
Salt spray resistance	2 000 hours (ASTM B117 ASTM D16	(54) Chloride permeability	< 10 coulombs (ASTM C 1202)				
Resistance to back pressure	1 MPa	Water permeability	No penetration (DIN 1048)				

Packaging	
pails (Kit 1 pail A : 20L + 1 pail B : 10L)	F
pails (Kit 2 pail A : 2 x 20L + 1 pail B : 20L)	aı
drums (Kit 2 drums A : 2 x 200L + 1 drum B : 200L)	pa th
	pails (Kit 1 pail A : 20L + 1 pail B : 10L) pails (Kit 2 pail A : 2 x 20L + 1 pail B : 20L)

Storage

rom the date of manufacture and in original unopened backaging, under cover at more than 5 °C in a cool, ventilated place (frost free) Shelf life : 12 months

This product is used in accordance with the provisions of the Specifications, Technical Specifications, Technical Advice of the Company KEMICA COATINGS Z.A. du Bois Gueslin F-28630 Mignières • France



Implementation									
Preparati on of the mixture	Thoroughly homogenize the two components - polyol (A) and isocyanate (B) before mixing Mix the mixture Comp A + Comp B with a mechanical stirrer for 60-120 seconds Then pour the product into a second container and resume mixing for 10 seconds. To minimize the air entrainment during mixing, it is advisable to perform this operation at low rotation speed (approx. 400 rpm), taking care to keep the agitator at the bottom of the bucket during its rotation.								
Applicati on	products > 4%, the	Check the humidity of the substrate, the relative humidity, the ambient temperature of the products and the substrates, and the dew point beforehand. If the humidity of the substrate is > 4%, the KEMIPOX or PU AQUEUX system can be used to form a barrier against ascending humidity.							
Substrate to	emperatur	e		C min. / C max.	Dev	v point :	The substrate mus	t be at + 3 ° C above	
Relative Hu	midity (RH	H)	< 95 %		the	dew poir	nt to reduce the risk	of condensation.	
Roll or brush application2-3 layersSpraying through high-pressure 2-component airless p					nent airless pump				
Application with 1 m			main layer			Component A : 1 500 cps / Component B : 150 cps			
				Temperature		Component A : 35°C / Component B : 20°C			
				Pressure 18		180 / 2	180 / 200 bars		
Covering time	Э		8 hours	Covering t	Covering time 8h for flooring, 2 h for vertical applicati			tical applications	
Start-up time			24 h	Start-up til	art-up time 24h				
Thickness	: 2 to 5 m	m (fo	or more deta	ils, please r	efer to	the chem	nical resistance cha	rt at the Appendix)	
	Tempe	eratur	е	+		0°C	+ 20°C	+ 30°C	
Pot life	Pot life					minutes ~ 20 minutes ~10 m		~10 minutes	
	The po	t life o	decreases as	the tempera	ture and	/ or amou	unt of prepared produce	ct increases.	
	Befo	ore a	oplication of	SOUPLETI	HANE 5 COR on KEMIPOX or PU AQUEUX primer				
Covering tim	Terenerature				+ 1	0°C	+ 20°C	+ 30°C	
j	Mini				24 hours		12 hours	8 hours	
	Maxi					ays	2 days	1 day	
Drying /	Tempe		е			0°C	+ 20°C	+ 30°C	
Start-up time	e Light loads				30 hours		24 hours	12 hours	
	Full cur	e			15	days	9 days	7 days	
Tools cleani		g Tools are cleaned with acetone or MEK immediately after use. In the cured state, the product can only be removed mechanically.							

These data are only indicative because the curing time varies according to the drying conditions (temperature and relative humidity in particular)

Qualifications

Decontaminatable Class 1 according to NF T 30-901 (C.E.A.) HQE A++ / Class A+ : Regulatory Labeling of VOC Emissions and Compliance with the AgBB Protocol (2012)



VISCOUS VERSION (THIXOTROPIC) : SOUPLETHANE 5 COR – THIXO

The viscous version of SOUPLETHANE 5 COR allows the roll application of 700 g/m² in one single layer.

Viscosity – Component A : 15 000 mPa.s (23°C) Consumption : Up to 700g/m²

The other characteristics of the system remain unchanged.



Appendix

SOUPLETHANE COR (5 or 6)

TABLE OF CHEMICAL RESISTANCE

Chemical retentions Flooring Contact: 72 h

Storage tanks Concrete/Steel Permanent contact

		Temperature			
Chemica	< 80°C	< 40°C	< 70°C		
ACIDS	Concentration	Thickness	Thickness	Thickness	
Hydrochloric acid	33 %	3 mm	3 mm	5 mm	
Nitric acid	60 %	2 mm	3 mm	5 mm	
Sulfuric acid	40 %	3 mm	3 mm	5 mm	
Phosphoric acid	100 %	2 mm	3 mm	5 mm	
Acetic acid	70 %	3 mm	3 mm	5 mm	
Lactic acid	30 %	2 mm	3 mm	5 mm	
All acids with pH >1		2 mm	3 mm	5 mm	
All acids with pH <1		Contact test 72 h	Immersion 3 weeks		
BASES	Concentration	Thicknes	Thickness	Thickness	
Sodium hydroxide	50 %	3 mm	5 mm	5 mm	
Potassium hydroxide	50 %	2 mm	5 mm	5 mm	
All bases with pH <13		2 mm	2 mm	5 mm	
All bases with pH >13		Contact test 72 h	Immersion 3 weeks		

Hydrocarbons	Concentration	Thickness	Thickness	Thickness
Petrol	100 %	2 mm	3 mm	5 mm
Gas oil	100 %	2 mm	5 mm	5 mm
Aliphatic essence	100 %	2 mm	2 mm	5 mm
Kerosene	100 %	2 mm	2 mm	
aromatic	100 %	2 mm		
Benzene, xylene				

CHLORIDES	Concentration	Thickness	Thickness	Thickness
Sodium salt	100 %	2 mm	3 mm	5 mm
Iron chloride	30 %	2 mm	3 mm	5 mm
Others		2 mm	3 mm	5 mm

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