

ENVIRONMENTALLY FRIENDLY SOLUTIONS TO PROTECT YOUR PCBA

**Conformal Coating** 

Glues

Resins / Silicones

**Cleaning Solutions** 

Qualifications and Tests

# ABchimie formulates and manufactures solutions to clean and protect electronic circuits.











#### **Conformal coating**

- Thin thickness 30 130 microns IPC CC 830
- Protection of electronics against humidity and condensation
- Protection against dust (metallic, etc...)
- UL94V0

#### **Epoxy & PU Resins**

- Resins two-component
- Excellent insulators against aggressive environments and contribute to the mechanical protection of the PCBs

#### Glues (epoxy, PU, silicone, MS polymer, UV)

- Reduction of assembly costs
- Reduction of process times
- Reliability of assemblies

#### Silicones : RTV1 and RTV2

- 10mm max for RTV1
- High thermal resistance (-50°C +200°C)
- Component hold
- Protection of sensitive components

#### Cleaners

- Removes all types of contamination (ionic and non-ionic)
- Improves coating adhesion and long-term reliability
- Stripping
- Maintenance of production tools (screen, oven, etc.)

### **R&D and quality at the service of our environmental approach**

As soon as it is technically possible, ABchimie offers a more responsible alternative to products, i.e. less harmful for operators and for the environment.



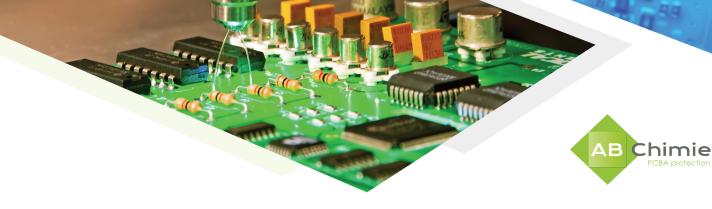
The company has implemented a quality approach and has been IATF 16949 certified since 2021, thus facilitating the referencing of products for the automotive industry.







# **CONFORMAL COATING**



# What is a conformal coating?

A **conformal coating** is a material intended to protect electronic boards from aggressive environments, mainly against humity.

There are two main types of conformal coating:

- **Solvent-based coating** based on acrylic, rubber, silicone or polyurethane. These coatings have the advantage of being easy to use and can dry under ambient environment.
- **Solvent free** 100% dry content (VOC Free), polymerize thanks to the UV lamps. These coatings have the advantage of curing in extremely short times and allow almost Immediate drying. Solvent free, they will have a lower environmental impact.

Depending on your needs, ABchimie will direct you to the most suitable solution for your application.

# **Application example:**

Conformal coating used by an Automotive customer to protect the audio system of Volkswagen cars: **ABchimie 526UV** 

**Strong point:** Coating curing with **UV LEDs** (low temperature compared to UV mercury), avoids the masking of high components sensitive to heat.

Industrial use: 10 years.

# **CONFORMAL COATING**



						High viscosity
	AVR80 BA	UVP33/ UVP63	NVR95	SVR99	SVP52	AVR80 BA GEL
Nature	Acrylic	Urethane	Rubber	Silicone	Silicone	Acrylic
Type of coating	Solvent	Solvent	Solvent	Solvent	Solvent	Solvent
Repairability	Yes	Yes (Locally)	Yes	Yes	Yes (Locally)	Yes
Viscosity (cP) at 25°C	250	230/100	210	155	65	Gel
Dry residue %	30	44/34	22	30	45	40
Temperature range	-65°C +150°C	-65°C +125°C	-65°C +150°C	-50°C +125°C	-60°C +200°C	-65°C +150°C
Curing type	RT / IR	RT / IR	RT/IR	RT / IR	RT / IR	RT/IR
Tack free time (mn) RT	20	20/40	10	20	30	30
Dielectric strength (kV/mm)	50	60	80	90	90	50
Stripper	SND/ ABclean	DVP	SND/ ABclean	SND/ABclean	DVP	SND/ABclean
Thinner	DVA BA	DVU	DVN	DVS	DVS	n.a
Standards	UL 94VO /NF EN 61086 /NF EN 55545	UL (In progress)	UL (In progress)	UL 94V0	-	-
Packaging	Flacon 10mL, Stylo 10mL, Aerosol 400mL, 5L	5L	5L	Aerosol 400mL, 5L	5L	Syringe 30mL, 1L

ABchimie offers its ready-to-use coating with a viscosity adapted to in-line or gun application systems in order to facilitate their implementation in the process for operators.

					High	viscosity
	UVA59	526 UV	746E UV	836 UV	42K UV	80K UV
Nature					Acrylic	Acrylic
COV %	13%	Low COV	Low COV	Low COV	0 COV	0 COV
Type of coating	Water based	Dual cure	Dual cure	Dual cure	Single cure	Single cure
Reparaibility	Yes (local)	Yes (local)	Yes (local)	Yes (local)	Yes (local)	Yes (local)
Viscosity (cP) at 25°C	1200	55-140	70	70	32 000	80 000
Dry residues %	40	100	100	100	100	100
Temperature range	-60°C +130°C	-50°C +150°C	-50°C +150°C	-50°C +150°C	-50°C +150°C	-50°C +150°C
Curing type	RT/IR	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg/UV LED	UV Hg/UV LED
Curing time/ energy	60 minutes	1500mJ/cm2	1500mJ/cm2	3000mJ/cm2	2500mJ/cm2	2500mJ/cm2
Dielectric strength (kV/mm)	60	60	60	60	60	60
Stripper	DVP	DVP	DVP	DVP	DVP	DVP
Cleaning	DEI water	SND	SND	SND	SND	SND
Standards	-	UL 94V0 / NF EN 61086	UL 94V0/ UL 746E	UL 94V0/ UL 746E	UL 94V0	UL94V0
Packaging	5L	1L,5L	1kg, 5kg	1kg, 5kg	Syringe 30mL, 1kg, 5kg, 20kg	Syringe 30mL, 1kg, 5kg, 20kg



Discover the conformal coating Video AVR80 BA acrylic repairable

# **GLUE RANGE**



## What is Gluing?

Gluing is a delicate operation which has many advantages since it makes it possible to avoid mechanical assembly by riveting, welding or screwing by allowing a continuous bond, a distribution of forces over the entire surface and a high resistance to fatigue

A reduction in the weight of the assembly due to the low mass of the adhesive and the reduction in the thickness of the materials.

The choice of adhesive will be based on the materials to be assembled and the expected mechanical and durability properties. A wide choice of chemistry is available and we help you find the best compromise according to your application and the means of implementation at your disposal.

	9005UV	9111UV	9030UV
Nature		UV GLUE	
Color	Transparent Ye <b>ll</b> ow	Transparent Ye <b>ll</b> ow	Transparent Ye <b>ll</b> ow
Hardness	D20	D40	D45
Viscosity (cP), 25°C	40 000	20 000	10 000
Temperature range	-50°C +130°C	-50°C +150°C	-50°C +150°C
Curing	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED
Dose UVA mJ/cm2	6000	3300	5000
Adhesion	Glass / Alu/ PMMA/ ABS	PET / Glass / Alu / PMMA/ PC	Glass / Alu / PMMA/ PC
Stripper	DVP	DVP	DVP
Thickness maxi (mm)	2	2	2
UV resistance	+	_	
UV bondii ultra-short pi	ng allows a rocess but	5	

of the faces allows UV rays to pass.

		AXIS MEDIC	AL AND BIO	COMPATIBLE	
	AXIS 931	AXIS 966 Family	AXIS 151-091	AXIS M-30CL	AXIS M-310 Family
Туре	UV	UV	UV Epoxy	Ероху	Ероху
Color	Clear Translucent	966 Clear , 966F Fluorescent 966M Red	966F Fluorescent Amber		310W White, 310C Clear
Hardness	D65	A35	D70	D75	D70
Viscosity (cP), 25°C	300	800	2 000	8 000	6 000
Elongation	40%	500%	30%	<10%	5%
Description	Design for rapid bonding of bobt PVC and polycarnate substrates.Low viscosity for close fitting tolerances	Soft, flexible needle bonding adhesive family, also capable as catheter adhesive. Available with fluorescent additive or red pigment for visibility, soft with high elongation and flexibility bonding to plastics	FDA Food contact compliant, 2 parts Vygellable epoxy with long work life for medical devices and packaging. Heat cure option.	High viscosity, high peel strength epoxy with visible bond lines for general purpose medical device assembly. Forms off white bond line for visibility of placement. Chemical resistant with 30-minutes gel time and 22-hours RT cure time.	l part heat curable medical epoxy assembly adhesive. Medium viscosity by High strength, durable, rigid
Application	Needle to canule bonding Catheter assembly Glass and metal assemblies	Needle to canule bonding Catheter assembly Glass and metal assemblies	Food contact application, Plastic, glass and metal medical device assembly	Medical device assembly larger gap filling	High demand medical device assembly Plastic, Metals and glass

### 4 main types of mechanical stress acting statically or dynamically













					POLY	<b>URETH</b>	ANE				EPOXY				
	A220/ A280/ A290	A 252	A236	A210	A211	052110 AFLV MOD D	090211-3	UV186- 141	072111- SB	UV20GEL	2E25	ST1626	ST1621	A140-1	H9952
New Name	SF 490 L15/ SF 490 L10/ SF 490 L03	SF 453 L04	SF 436 L25	SF 410 L60	SF 411 L60	-	-	-	-	-	-	-	-	SP 740	SP 752 L120 FR
Туре				POLYURE	THANE BI			PU UV BI	PU U\	/ MONO			ΕΡΟΧΥ ΒΙ		
Color	Black White White	Black	Beige	Grey	Green	Black	Blue	C <b>l</b> ear White	Purple	Clear	Amber	Trans- parent	Trans- parent	Beige Black	Black
Hard- ness	D48	A70	D60	D50	A95	D20	A80	A50	D50	A80	D70	D80	D80	D75	D85
Viscosity (cP), 25°C	150 000	600 000	Paste	5 500	Paste	4 500	200 000	8 000	22 500	Thixo- trope	12 000	15 000	45 000	430 000	180 000
Pot Life min	15/10/3	8	30/90/ 120	45	40	10	2	UVA395 7000mj + moisture RT	UVA 4000mj + moisture RT 24h	UVA395 3500mj	60	6	6	40	120
Packa- ging	50ml/ 400ml Bidon	50ml/ 400ml Bidon	400m <b>l</b> / Bidon	50ml	50ml	50m <b>l</b> / Kit 29kg	Kit 33kg	50ml/ 200ml/ 30kg	900g	55ml/ 340ml	50ml	50ml	50ml/ 200ml/ Bidon	50m <b>l</b> / 400m <b>l</b> / Bidon	50ml/ 420ml/ Bidon
Applica- tion	Structural bonding, absorbs vibrations, impact resistance 30N/mm	Adhesive, Paste, non sliding for irregular space, high flexibi- lity, impact resis- tance 70N/mm	Assem- bly of parts with large clea- rances (<40m m)	Bonding of body- work, bonding of metallic struc- tures (racing vehicles aero- nautics) bonding of insert and com- posite structure	Dielec- tric adhesive for elec- tronic com- ponents, <b>UL94V0</b>	Fill and sealing plastic housing <b>FORD</b>	Potting in elec- tronic housing, action thixotro- pic <b>CM</b>	Sealing connectors on front windshield HONDA, TOYOTA	Structural adhesive for plastics, Nylon, Delrin, PET & Santo- prene PBT/NYLO N/DELRIN/ PP <b>TESLA,</b> <b>GM,</b> <b>HONDA,</b> <b>FORD</b>	Anti vibration for composant <b>HONDA</b> <b>TOYOTA</b>	For high tempera- ture 180- 200°C Application EV adhesive and Encapsu- lant <b>FDA</b> Compliant	Quick curing at RT, to glue composite, metal, wood, concrete	Quick curing at RT, to glue composite, metal, wood, concrete	Excellent mecha- nical properties, mpact resistance 10N/mm	High mecha- nical resistance, UL and EN45545

	THERMAL MA	NAGEMENT
	THERMOSINK 35-5	THERMOSINK 35-6
Туре	RTV2	RTV2
Hardness	A25	A75
Mix ratio	1:1	1:1
Temperature range	-40 +200°C	-40 +200°C
Viscosity	15 000	30 000
Color	Grey	Grey
Curing time	4H RT or 15min 125°C	2h RT or 45min 100°C 45MN
Thermal conductivity	> 3,4WM°K/ UL94VO	> 3,5WM°K 3,4WM°K/ UL94VO OUTGAS NASA
Packaging	40kg	40kg

			SILICONE GL	.UE	
	R15220	R14968	S802	SP7601	SP7605
Color	Transparent	Translucide	White/ Transparent	Black	Transparent
Hardness	A20	A15	A45/A30	A65	A20
Viscosity Iso 1183-1 [g/cm³]	7 000	40 000	Paste	Paste	7 000
Skin forming 23°C/50%RH	15	15	20/12	10	15
Flame retardancy	-	-	UL94 HB	UL94 V1	UL94 HB
Other	-	UV Tracer	-/-	-/- 1,7Wm°K	
Packaging	310ml, 20 l, 200 l drum				

Curing at room temperature, one-component silicones allow the assembly and sealing of parts with very different coefficients of expansion.

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## Which application for UV resins and UV glues?

Resins and glues curing with UV lamps are products that fulfill several functions:

- Protection of electronic components
- Barriers to prevent capillary rise of conformal coating
- Bonding of components
- Mechanical support (welds or legs of components)

The main advantage of UV curing products is the speed of curing: only a few seconds under a UV or LED lamp.

ABchimie offers products that polymerize under **UV Mercury lamp** but also under **UV LED lamp**, the most ecological and economical solution known to date.

Depending on your needs, ABchimie will direct you to the most suitable solution for your application.

## **Application example:**

UV glue used for a customer **working in lighting** to glue lenses on LEDs: **ABchimie 9030 UV** 

**Strong point:** Product available in UV Mercury and UV LED version. Instant drying



# **UV RESINS AND GLUES**



	GLUES							
	15K UV	42K UV	80K UV	6025 UV	9005 UV	9030 UV	9111 UV	UV PEELABLE
Nature				Acry	lic			
Color	Transparent	Translucent	Transparent	Translucent	Transparent	Transparent	Transparent	Translucent
Hardness (Shore)	D40	D25	D15	A60	D20	D40	D45	A18
Viscosity (cP), 25°C	7,000	32,000	80,000	Thixotropic	40,000	20,000	10,000	Thixotropic
Temperature range	-50°C +150°C	-50°C +150°C	-50°C +150°C	-50°C +150°C	-50°C +130°C	-50°C +150°C	-50°C +150°C	-20°C +120°C
Curing	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED	UV Hg / UV LED
UVA dose mJ/cm2	9000	2000	2500	4300	6000	3300	5000	2000
Adhesion	PCBA / Glass / Alu	PCBA / Glass / Alu	PCBA / Glass / Alu	_	Glass / Alu / PMMA / ABS	PET / Glass/ Alu /PMMA / PC	Glass / Alu / PMMA / PC	N.A.
Stripper	_	DVP	DVP	DVP	DVP	DVP	DVP	Peelable
Thickness maxi (mm)	5	5	5	4	2	2	2	5
UV resistance	_		_	_	+	_		N.A.
Standards	_	UL94V0	UL94V0	_	_	_	_	-
Packaging			Syringe 30	0ml, 330g, 1kg,	5kg, 20kg			

ABchimie offers a range of UV resins curing under LED lamp @395nm. All our products have a version curing under mercury lamp (Hg).



Discover the video of the ABchimie 42K UV resin



## **POLYURETHANE AND EPOXY RESINS**



Polyurethane or epoxy resins are two-component resins used to encapsulate electronic systems.

Encapsulation allows the electronic system to be isolated from its external environment and to be protected against:

- Rain and immersion
- Chemical attacks (solvents, salt water, oils, corrosive products, etc.)
- Mechanical shocks

#### Properties of polyurethane resins and epoxy.

RESINS	POLYURETHANE	ΕΡΟΧΥ
Hardness	Variable	High
Hydrocarbure resist.	OK	ОК
Temperature resist. ( <sup>O</sup> C)	130	170
Price p/ board or p/m <sup>2</sup>	€	€€
Working time (min)	10 - 30	30-120
Adhesion	+++	++++
Chemical resistance	++	+++
Abrasion resistance	+++	+++
Exothermic reaction	++	++
Elongation	Variable	Low

## **Application example:**

Polyurethane resin used by a customer for maritime applications to protect satellite beacons for boat safety: **U6000 FREE** 

**Highlight:** Bi-component polyurethane resin without isocyanate with high protection against salt water.

Industrial use: Since 2016



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Depending on your needs, ABchimie will direct you to the solution best suited to your application.



# **POLYURETHANE AND EPOXY RESINS**



				<u>fika</u> »	<i>lika</i> °	<b>fika</b> ®	<b>fika</b> ®	<i>lika</i> ®			
	U4291	U6942	U6000 Free	RE461	RE551	RE723-02	RE820	RE602	ST21	ST1626	
Nature				Ureth	nane				Ероху		
Hardener	U4291B	U6942B	U6000B	RE101/ RE102	RE102	RE107	RE102	RE602	CA51	ST1626B	
Ratio (Weight)	100/26	100 / 16	100 / 21	100/16	100/14	100 / 100	100 / 25	127/100	100/9	100 / 100	
Specific gravity	1,05	1,55	1,5	1,55	1,55	1,1	1,1	1,3	1,6	1,15	
Mixed viscosity at 20°C (cP)	500	1100	2600	1100	2400	300	4300	6000 -> Thixo	1500	15000	
Hardness (Shore)	A20 Friable	D35	D40	D35	D55	A72	A80	D57	D90	D80	
Temperature range	-50°C +120°C	-50°C +120°C	-50°C +120°C	-50°C +120°C	-40°C +130°C	-40°C +80°C	-55°C +120°C	-50°C +110°C	-50°C +150°C	-40°C +120°C	
Thermal conductivity (W/m°K)	0,2	0,7	0,3	0,7	0,3	0,2	0,25	0,3	0,75	0,2	
Dielectric strength (kV/mm)	14	25	27	25	21	On going	28	18	20	15	
Working Time (min)	20	10-20	60	10-20	20	5	1 - 5	20 secs.	30 <b>-</b> 40	6	
Gel Time (min)	30	30	60	30	55	10	4-10- 40	7	50-90	10	
Color	Yellow transparent	Black, White	White	Black, White, Red, Brown	Black	Translucent	Black, Beige	Black	Black	Transpa- rent	
Repairability	Yes	No	No	No	No	Yes	Yes	No	No	No	
Characteristic	Repairability	General	MDI Free	General	Low cost	Repairability	RF, Fast curing	Thixotropic	Anti piracy	Glue	
Standards	-	UL94V0 Meets	-	UL 94V0 / EN 45545	UL 94V0	-	-	UL 94V0	UL94V0 Meets	-	
Packaging	C400mL, K05K, K25,2K	C400mL, K05K, K25,2K	C400mL, K6,05K	K5,8K, K23,2K	B5K, B20K, B250K	KIOK	K5K	50cc, C400mL, B12,7K	K01K, K05K, K27,5K	50cc	

ABchimie offers a wide range of resins in packaging adapted to your processes.



Preparation video of a 2-component resin



## SILICONES RTV1 & RTV2

## What is a silicone RTV1 or RTV2?

RTV1 are single-component silicones which cure thanks to the moisture in the air. These products can be applied up to 10mm thick. They can:

- Protect components against humidity and salt spray.
- Protect against temporary exposure to water.
- Bond components.
- Provide mechanical support to component welds.
- Ensure water tightness.

RTV2 silicones are two-component silicones that allow electronic systems to be encapsulated under a high thickness. The main advantages over polyurethane and epoxy resins are:

**AB** Chimie

- Resistance to high temperature
- Flexibility

Depending on your needs, ABchimie will direct you to the solution best suited to your application

## **Application example:**

RTVI silicone used for an **automotive customer** for vehicle lighting and mechanical capacitor support: **Silicone R14968, transparent & silicone. RTV1 Neutral.** 

Highlight: Neutral silicone suitable for electronics with a fast skin

formation time: (about 15 min).

Industrial use: +10 years.

# SILICONES RTV1 & RTV2



RTV 1	R14968	<b>S800</b>	<b>S803</b>	SP7605	TSE392/397/399	<b>RTV133</b>
Nature			ALK	ΟΧΥ		
Color	Transparent	White, Black	Translucent	Translucent	Transparent, white	Black
Consistency	Self levelling	Thixotropic	Self levelling	Fluide	Thixo, self levelling, fluide	Thixotropic
Viscosity (cP) at 25°C	30 000	Paste	30 000	7 000	Paste, 50 000, 2 500	Paste
Hardness (Shore A)	A15	A45	A15	A20	A20	A45
Temperature range	-40°C +200°C	-40°C +150°C	-40°C +200°C	-40°C +180°C	-60°C +205°C	-40°C +205°C
Tack free time (mn)	20	20	20	15	5, 10, 10	60
Characteristics	Waterproof high thickness, bonding	Waterproof bonding	Waterproof high thickness, bonding	Topping	Waterproof high thickness, bonding	Waterproof bonding
Standards	Meets UL94 HB	UL94 HB RTI 105°C	UL94 HB RTI 105°C	UL94 HB RTI 105°C	UL94 HB / MIL 46146B	UL 94V0
Packaging	30cc, 310ml, 20kg	310ml, 20kg	310ml, 20kg	310ml, 20kg	82ml, 310ml, 18kg	310ml, 20kg

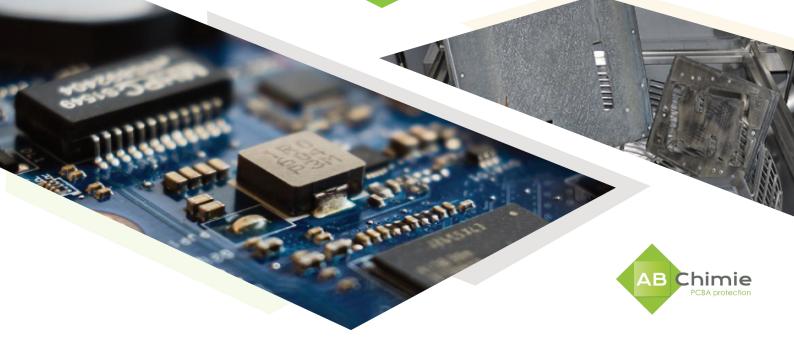
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RTV2	RTV577	RTV11	<b>R76</b>	RTV615	XE14 B7892	THERMON- SINK35-5
Nature	Condensation	Condensation	Addition	Addition	Addition	Addition
Color	White	White	Transparent	Transparent	Black	Light grey
Viscosity (cP) at 25°C	700 000	12 000	7 000	4 000	1 300	15 000
Hardness (Shore A)	A50	A42	A33	A45	A60	A25
Temperature range	-115°C +204°C	-60°C +205°C	-55°C +220°C	-60°C +205°C	-55°C +200°C	-40°C +250°C
Working time (mn)	120	90	15-20	240	120	20
Characteristics	Low temperature	Potting	Potting	Optical quality	0,8Wm°K	3.4Wm°K Low degassing
Standards	_	FDA	-	FDA	UL 94V0	-

ABchimie offers a wide range of silicones, this list is not exhaustive, we will be happy to advise you on the most appropriate product for your application.



Find all detailedproducts on our website 1230, route de la Porte ,Z.A. La Rivoire, 38630 Corbelin France Tel +33 (0)4 74 83 12 19 | info@abchimie.com | www.abchimie.com

# **CLEANING SOLUTIONS**



## What are electronic cleaning products used for ?

In the electronics industry, cleaning agents are used for different applications:

- Cleaning of maintenance tools (screen printing frames, coating frames, ovens, flux traps, etc.):
- Cleaning of electronic boards (defluxing):
- Stripping

For this, there are two main product lines:

- Water-based products
- Solvent-based products

Water-based products are used in automatic processes with machines, while solvent-based solutions are used more for manual processes.

Depending on your needs, ABchimie will advise you to the solution best suited to your application.

## **Application example:**

Water-based cleaner used for an **Automotive customer** for cleaning coating frames in an automated process: **MADEX 250** 

**Highlights:** Highly concentrated cleaner that can be diluted up to 80% with demineralized water. Allows reduced consumption of the product.

Industrial use: Since 2019



# CLEANING SOLUTIONS



	SND	ABclean	NCC	DRP10-2	DVP
Nature	Solvent Based				
Application	Defluxing, stripping	Defluxing PCBA	Cleaning of solder paste and glue	Pollutant residues cleaner	Stripper for coating and resins
Flash point (°C)	<0	12	<0	>55	<23
Evaporation rate (Ether=1)	16	20	16	66	-
Characteristics	Versatile	Flux cleaner	Screen Maintenance	Degreasing	Gel Stripper
Packaging	Stylo 10mL, / Aerosol 400mL, 5L, 30L	5L	5L	1L, 5L, 30L	٦L

	CIPEX 42	SEREX 62	MADEX 20	MADEX 250	
Nature	Water Based				
Application	Défluxing, PCBA	Screen cleaner	Service aids application	Stripper for coating	
Flash point (°C)	N.A.	N.A.	N.A.	N.A.	
Evaporation rate (Ether=1)	N.A.	N.A.	N.A.	N.A.	
Concentrated version	CIPEX 52	SEREX 72	MADEX 30	MADEX 250	
Characteristics	Defluxing	Screen	Maintenance ovens, flux trap	Maintenance	
Packaging	5L, 30L	5L, 30L	5L, 30L	5L, 30L	

ABchimie offers a range of cleaners dedicated to defluxing and maintenance of electronics processes compatible with the plastic materials present.



Discover stripping on video.



### **Customer support**

THICK THICKNESS

From choice to implementation, our expertise and experience at the service of the protection of your electronic components.



### To each environment, its solution

Depending on the environment in which your electronics will live, you must choose the most suitable product (s) from the ABchimie range.

### Tables of general characteristics to choose your protection :

CONFORMAL COATING	ACRYLIC	PU	SILICONE	UV	RUBBER
Adhesion	+	++	+	++	++
Gloss	+	++	+	++	+
Dielectric strength (kV/mm)	50	60	90	90	60
Temperature resistance (°C)	150	130	200	150	150
Cost per board or by m <sup>2</sup>	€	€€	€€€	€	€€
Touch dry time (min)	15	30	30	1	10
Repairability	Yes	Local only	Local only	Local only	Yes
Chemical resistance	+	++	++	+++	+

RESINS	POLYURETHANE	ΕΡΟΧΥ	SILICONE
Hardness	Variable	High	Soft
Hydrocarbure resistance	ОК	ОК	No
Maximum temperature resistance (°C)	130	170	200
Cost per board or by m <sup>2</sup>	€	€€	€€€
Working time (min)	10-30	30-120	30-120
Adhesion	+++	++++	+
Chemical resistance	++	+++	+
Abrasion resistance	+++	+++	+
Exothermic reaction	++	++	+
Elongation	Variable	Low	High

Find all the detailed characteristics of our products on our website :



### **Application areas**

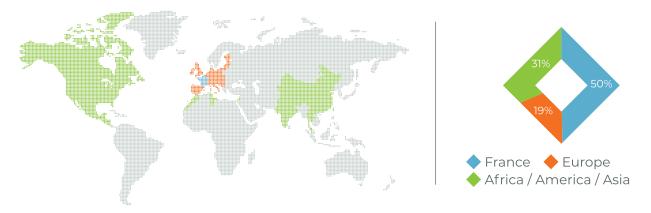
The deployment of electronics affects all sectors of activity, so we support small and large industries every day: from the protection of household electronics to on-board electronics for the conquest of space.

#### Automotive | Medical | Industry | Aeronautics | Defense | Agricultural



### **Distribution of ABchimie products**

Every year, export business represents approximately 50% of our turnover thanks to the trust and expertise of our distributors in 29 countries.



→ Find all our distributors on our website.



ENVIRONMENTALLY FRIENDLY SOLUTIONS TO PROTECT YOUR PCBA