







Conformal Coating
Epoxy and urethane resins
UV Resins and glues
RTV1 - RTV2 Silicones
Cleaning products
Service aids
Expertise

Our ambition : be your expert

After more than 10 years, ABchimie the french specialist for PCB protection offers to electronic industry the best solutions to clean and protect your PCB.

Formulation, research and development, production and sales are our core business. ABchimie offers you conformal coating, resins epoxy, urethane, silicones and also cleaning and service aids products for your applications.

Our team composed by researchers and sales engineers are ready to assist you with their knowledges and experiences to answer to your problematics. Tests can be performed in our laboratory.

Quality system



ABchimie implemented a Quality Management System since its inception. Our quality approach also aims to improve ourselves, taking account of any customer complaints.



The quality system of ABchimie is ISO 9001: 2008 and ISO 14001: 2004.

Vigilance regulatory

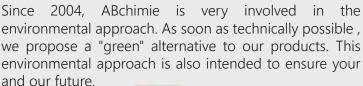


Our products and Safety Data Sheets are compliance with REACH regulation.



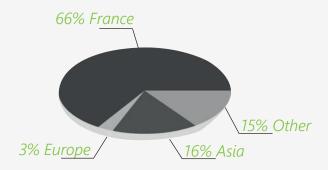
ABchimie certifies that all its products complies with ROHS regulation.

An environmental approach:





International business:



Sales France/Export

Customer referents





















Our products:



Cleaning products:

To improve reliability of electronic assemblies it is shown that a thorough cleaning is essential to remove all traces of contamination (flux, oxydes ...) on PCBs.

Cleaning products are also available for production equipment.



Conformal coating:

ABchimie Conformal coatings are specially developed to ensure the PCB optimal protection. Conformal coatings ensure the reliability of electronic equipment and improve their shelf life.

Solvent bases and new UV generation.



Resins:

ABchimie Epoxy and urethane resins are excellent insulators against harsh environments and contribute to the mechanical protection of the circuits.



Silicones:

Silicon chemistry is very different compare other materials. Due to their particular chemical structure, silicon permit to be used where other materials can not be used (temperature, flexibility ...).



UV resins and glues:

Technologically advanced, our resins can protect in fine or thick thickness your sensitive parts and components. Our specific product permit to used mercury lamp or LED curing system.



Expertise:

Our laboratories offer to carry out specific qualification tests to validate your processs .

Wettability, cross cut, VRT test and SIR BONO

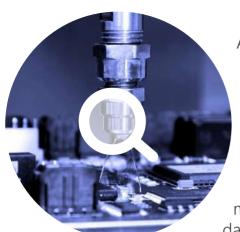
The audit of your coating lines, potting ...

Our experts listen you.



Service aids:

Air duster, foam, cleaner, lubrifiant ...



ABchimie's conformal coating are specially developed to ensure a high protection to PCBs from their environment.

They improve and extend the working life and reliability of performance. They protect PCBs against harsh environment as salt spray, humidity, temperature, solvent, dust...with, in general, a thin layer (25 to 50 microns) these environmental conditions can cause damage as corrosion, current leakage and failure.

Why use ABchimie conformal coating?

ABchimie proposes a high quality of products but also proposes ready to use products.

You can ask your specific viscosity for your machinery for the same price. We bring you all technical support to help you in your process.

Be present and help you is one of our major involvement to earn your trust.

Health & Safety:

ABchimie is very involved in these subjects, for this reason we are always looking for a "green" alternative when it's possible. AVR80 BA is the green alternative of common acrylic conformal coating, this version is no toxic. The specific solvent used in this formulation permit to protect people.

This reference is now very well known and used in large quantity in automotive, military and industrial applications. Regarding new generation of conformal coating we propose ABchimie526UV and ABchimie746 E UV which contain no VOC and cure with UV mercury lamp but also with LED which permit to replace the mercury lamp by LED lamp 395nm.



Application methods:

- SPRAYING:

Very goods results on plane surface.

- Cans: very interesting for repairs, small and medium series.
- Spray gun: higly economic

- SELECTIVE DEPOSIT:

Different existing machineries: ASYMTEK, PVA, USI, DIMA High performance level for mass production, reliability of deposit

- DIPPING :

To ensure presence of conformal coating even under components. Small production

How to choose a conformal coating?

It is very important to define well your need:

- Norms
- PCB environment
- Reparable
- Electric requirement
- How you will apply it

- ...

You need some help? Contact us.

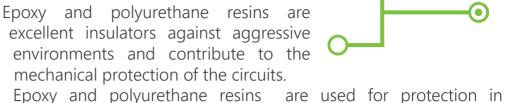
MEDICAL SPATIAL HOME APPLIANCE MILITARY INDUSTRY

Application area:

	NEW NEW								
	SVR99	SVP52	AVR80 BA	UVP63	UVA59	SIL100	ABCHIMIE 526UV	ABCHIMIE 746 E UV	ABCHIMIE 42K UV
Nature	Silicone solvent base	Silicone solvent base	Acrylic solvent base	Urethane Solvent base	Urethane Water based	Silicone Low COV	UV dual cure 0 COV	UV dual cure 0 COV	UV 0 COV
Type of vanish	Removable	Permanent	Removable	Permanent	Permanent	Permanent	Permanent	Permanent	Permanent
Viscosity (cSt)	165	140	250	150	<100	100	55-140	90	42 000
Solids %	34	35	30	38	30	100	100	100	100
Flash point (°C)	<0	25	25	36	n.c.	n.c.	n.c.	n.c.	n.c.
Temperature range	-50°C +125°C	-60°C +200°C	-65°C +150°C	-60°C +130°C	-60°C +130°C	-50°C +200°C	-50°C +150°C	-50°C +150°C	-50°C +150°C
Touch dry time (mn)	20	30	10-15	30	60	30	n.a.	n.a.	n.a.
Dielectric strength (kV/mm)	90	90	50	60	60	90	80	80	60
Insulation resistance (ohms) (1)	1012	1012	1012	1012	10 ¹²	1012	1012	1012	1012
Breakdown voltage(1)	>1500	>1500	>1500	>1500	>1500	>1500	>1500	>1500	>1500
Fast variation of temperature test(2)	yes	yes	yes	yes	yes	yes	yes	yes	yes
Thermal shock (3)	yes	yes	yes	yes	yes	yes	yes	yes	yes
SIR TESTING 15H (4)	yes	yes	yes	yes	yes	yes	yes	yes	yes
Humidity resistance (5)	yes	yes	yes	yes	yes	yes	yes	yes	yes
Solvent resistance	no	yes	no	yes	yes	yes	yes	yes	yes
Stripper	SND	DVP	SND	DVP	DVP	-	DVP	DVP	DVP
Thinner	DVS	DVS	DVA BA	DVU	EAU DEI	n.a.	n.a.	n.a.	n.a.
Select coat version	SVR99 DS	SVP52 DS	AVR80 BA DS	UVP63 DS	UVA59 DS	-	DS55 - DS140	DS90	-
Fast dry version	-	-	AVR80	-	-	-	526UV-LED	746 E UV LED	42UV-LED
APPROVALS	UL 94V0	-	UL 94V0 NF EN 61086	-	-	-	UL 94V0 NF EN 61086	-	-
PACKAGING	Aerosol 400ml 5 litres	Aero. 400ml 5 litres	Aerosol 400ml 5 litres	5 litres	5 litres	5 litres	5 litres	5 litres	Syringe, 5 litres

n.a.: non applicable // Tests éprouvettes IPC B-25

1: Mil-I-46058C; 2: -25°C/+25°C, 100 cycles, palier 15mn, 50C/mn; 3: -25°C/+50°C, 15mn/15mn, 50 cycles; 4: 20°C/80°C – 90% RH; 5: 10°C/80°C, 95% RH +-4%, 360 jours;





thickness. These systems are generally two liquid components when mixed climb quickly in viscosity until fully cured. They are designed to protect and insulate the printed circuit board components against harsh environments: moisture, vibration, mechanical and thermal shocks. The resins offer a total protection of the printed circuit and allow through the deposited thickness of the subset to work completely immersed in water, solvent, gas ...

POLYURETHANE RESIN

More flexible and less stress on components PCB during curing. They cure more quickly and are more resistant to abrasion.

EPOXY RESIN

Higher temperature resistance compared to polyurethane resins. They are generally harder and offer better adhesion and excellent resistance to chemical environments.





How to choose a resin?

To choose the most appropriate resin, it is important to clearly define your needs:

- Norms
- Environment
- Repairability y/n
- Electrical Characteristics
- Method of application
- Operating temperature

You need some help to choose? Contact us.

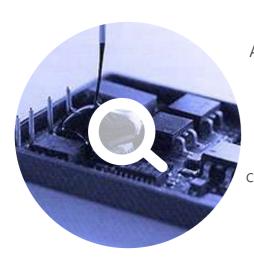






Application area:

		POLUY	'RETHANE	EPOXY			
Reference	U1911	U4291	U69-42	U6000 Free	ST1611A	ST21A	ST1626
Catalyst	U1911B	U4291B	U69-42B	U6000B	ST1611B	CA51B	ST1626B
Viscosity (cSt)	900	500	1100	2600	2000	1500	15000
Specific gravity	1,1	1,05	1,55	1,50	1,1	1,6	1,15
Temperature of use	-55°C +120°C	-50°C +120°C	-50°C +120°C	-50°C +120°C	-50°C +130°C	-50°C +130°C	-40°C +60°C
Mix in weight	100 : 93	100 : 27	100 : 16	100 : 21	100 : 45	100 : 9	100 : 100
Dielectric strenght (kV/mm)	20	14	25	27	15	20	15
Pot life (mn)	15	20	15-20	60	90-120	30-40	6
Gel time (mn)	30	30	30	80	40	50-90	10
Hardness	A75	Friable	D35	D40	D80	D90	D80
Color	Transparent	Yellowish	White, Black	White	Transparent	Black	Transparent
Thermal conductivity (W/m°K)	< 0,21	-	0,7	-	-	0,75	-
Tg (°C)	-	-	< 25	-20	70	60	40
Qualification	no	no	meets UL94V0 (6mm)	no	no	meets UL94VO (4mm)	no



ABchimie offers a comprehensive portfolio of silicone solutions to help meet a broad array of handling and performance needs in electronic components and assemblies. Selection of the appropriate type of RTV depends upon the required manufacturing process, handling requirements, curing conditions, equipment, and desired material properties.

RTV1 polymer curing system:

Condensation curing

Condensation system cures when exposed to moisture in the environment at room temperature. These materials are categorized into Alkoxy, Acetoxy, or Oxime. Condensation product is not sensible to inhibition, but can reverse in confined area.

Addition curing

Addition system cures when exposed to moisture in the environment at room or high temperature. Addition product can reverse in confined area, but are sensible to inhibition (amine, suffer...).

Sealing and adhesion:

Silicones are used in a large wide of applications for bonding components, and sealing against moisture or environmental contaminants. A large offer of 1 Part and 2 Part Adhesives and Sealants, many silicone are excellent candidates for assembly applications for sensitive electrical and electronic components. These materials can be applied by manual dispensing or auto-dispensing units for tube, cartridge, pail, or drum packages. Mix of 2 part grades may be accomplished by either manual processes or meter mix dispensing, depending on production volume and post-mix material properties.

Performance Considerations:

- Temperature resistance
- Flame retardancy
- Adhesion
- Hardness
- Dielectric resistance
- Low volatility
- Mechanical strength
- Thermal conductivity

Process Considerations:

- Viscosity
- Cure temperature
- Pot life
- Cure mechanism
- Cure time

How to choose a silicone?

To choose the most appropriate product, it is important to clearly define your needs:

- Norms
- Environment
- Repairability
- Viscosity
- Application method

You need some help to choose? Contact us.



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- [PRODUCT	COLOR	TYPE	CONSISTANCY	VISCOSITY (cP)	HARDNESS	TEMPERATURE	APPROVALS	SPECIFICATIONS
						(SHORE A)	RANGE ro curo	ALLINOVALS	31 ECITICATIONS
	DT1 (402, 402, 405+	With Division Division			mponent, room			4.0.6.0	
	RTV102, 103, 106*, 108	White, Black, Red, Translucent	Acetoxy	Thixotrope	nc	30	-60°C +205°C	A,B,C,D	-
	RTV112, 116*, 118	White, Red, Translucent	Acetoxy	Self-levelling	nc	30	-60°C +205°C	A,B,C,D	-
	RTV133	Black	Alkoxy	Thixotrope	nc	40	-60°C +205°C	E	High temperature
	RTV157, 159	Grey, Red	Alkoxy	Thixotrope	nc	27	-60°C +205°C	-	High temperature
	RTV160, 162	White	Alkoxy	Self-levelling / Thixotropic	nc	28	-60°C +205°C	A	Neutral
	RTV5240	Black, White	Alkoxy	Thixotrope	nc	40	-60°C +200°C	-	UL
	TSE392C, 392W	Transparent, White	Alkoxy	Thixotrope	nc	30	-60°C +205°C	-	-
	TSE397C, 397W	Transparent, White	Alkoxy	Self-levelling	50 000	20	-60°C +205°C	-	-
	TSE399C, 399W	Transparent, White	Alkoxy	High flowable	2 500	30	-60°C +205°C	-	-
	TSE3940, 3941	Grey, White	Alkoxy	Thixotrope	nc	40, 60	-60°C +205°C	E	Thermal conductivity: 0,83W/m°K
	TN3005	Transparent, White	Neutre	Thixotrope	nc	22	-	-	Fast cure
	TN3085	Grey, White	Neutre	Thixotrope	nc	46	-	E	Fast cure, UL
	TN3305	Transparent, White	Neutre	Self-levelling	47 000	14	-	-	Fast cure
	TN3705	Transparent, White	Neutre	Fluide	1 500	13	-	-	Fast cure
	R1531	Black	Benzamide	Self-levelling	55 000	30	-60°C +205°C	-	Fast cure
	R3231	Transparent	Neutre	Self-levelling	40 000	27	-60°C +205°C	-	-
	R3236	Transparent	Neutre	Thixotrope	nc	35	-60°C +205°C	-	Fast cure
	IS5128	Transparent	Neutre	Thixotrope	nc	20	-50°C +150°C	-	Fast cure
				(One-component	t, heat cure			
	TSE322, 322B	Clear blue, Black	Addition	Self-levelling	120 000	44	-60°C +205°C	-	Adhesion
	TSE326, 326M	Red, Red	Addition	Flowable	40 000	46	-60°C +260°C	-	Adhesion,thermal conductivity
	TSE3051, 3051FR	Transparent	Addition	Liquid	700	Gel	-60°C +205°C	UL94V1	-
					Two-compo	onent			
	PRODUCT	COLOR	TYPE	CONSISTANCY	VISCOSITY (cP)	HARDNESS (SHORE A)	TEMPERATURE RANGE	APPROVALS	SPECIFICATIONS
	RTV 11	White	Condensation	Flowable	12 000	45	-60°C +205°C	В	Potting
	RTV 12 B/C	Translucent blue	Addition	Flowable	1 300	15	-60°C +205°C	-	Removable
	RTV 60	Red	Condensation	Flowable	50 000	60	-60°C +205°C	-	Aeronautic high température
	RTV 577	White	Condensation	Paste	600 000	50	-115°C +260°C	-	Aeronautic
	SEA 210	Black	Condensation	Thixotrope	-	37	-45°C +135°C	-	High mechanical strength
	TSE 3062	Transparent	Addition	High flowable	1 000	Gel	-54°C +204°C	-	Fast cure
	TSE 3331	Black	Addition	Flowable	3 500	60	-50°C +250°C	E	0.63Wm°K, heat cure
	RTV 615	Transparent	Addition	High flowable	4 000	45	-60°C +205°C	-	Optic quality
	RTV 630	Blue	Addition	Flowable	180 000	70	-60°C +205°C	-	Abrasion resistance
	RTV 627	Black	Addition	High flowable	2 000	65	-60°C +205°C	E	-
	R1533	-	Addition	Flowable	25 000	42	-50°C +200°C	-	Molding
	R1791	Transparent	Addition	High flowable	1 000	Gel	-50°C +200°C	-	Gel
	XE14 B7892	Black	Addition	Flowable	13 000	60	-50°C +200°C	-	Thermal conductivity
A	: MIL A-46106A -	B : FDA - C : UL - D : NS	F - E : UL94 V0 - *: -	60°C +260°C					





In view to increase reliability of equipment it has shown there is vital to clean pcb to eliminate all traces of fluxes, grease and other contaminants.

ABchimie developed a range of solvent and aqueous cleaner to clean your PCB and production machinery.

Why clean PCB?

- Eliminate all ionic contaminants
- Increase adhesion in case of conformal coating application
- Eliminate solder micro balls
- Reliability of assemblies

Why clean screens?

- Reliability of your solder paste deposit
- Accuracy of deposit
- Clean misprinting

Equipements:

- Ultrasonic tanks
- Spraying machine (dishwasher type or online)
- Manuel
- Sprayers immersed
- Bubbleling





Aqueous base or solvent base?

Your choice depends of

- Substrat to clean
- Type of contamination
- Equipment
- Volume to clean
- Environmental policy
- Speed process needed

You need some help to choose? Contact us.







Application area:





	NCE	SND	DNS	NDD	NCC	SPS*	DRP-10*	CIPEX40	SEREX60	MADEX20
Base	Solvent	Solvent	Solvent	Solvent	Solvent	Solvent	Solvent	Aqueous	Aqueous	Aqueous
APPLICATION	Contact cleaner	PCB cleaning solvent	PCB cleaning solvent	Degreaser, flux remover	Paste and adhesive cleaner	Stencil solvent	Degreaser pollutant residues	PCB cleaner	Screen printing cleaner	Service aids
Flash point (°C)	<0	0	13	0	0	56	>55	n.c.	n.c.	n.c.
Evaporation rate (éther=1)	2	16	20	16	16	64	66	n.c.	n.c.	n.c.
TWA (mg/m³)	1400	340	370	340	150	150	150	n.c.	n.c.	n.c.
Specifications	Very fast drying	Versatile	Versatile	Orange odour	Screen cleaner	Screen cleaner	Degreaser	Flux remover	Paste and glue	Service aids
Concentred version	-	-	-	-	-	-	-	CIPEX 50	SEREX 70	MADEX30
Non-foaming version	-	-	-	-	-	-	-	CIPEX 42/52	SEREX62/72	MADEX20/30
COMPATIBILITY										
Plastics	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sensitive metals	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
PACKAGING	Aerosol 400ml 1 litre 5 litres	Aerosol 400ml 1 litre 5 litres	1 litre 5 litres 30 litres	Aerosol 400 ml 1 litre 5 litres 30 litres	Aerosol 400 ml 1 litre 5 litres 30 litres	1 litre 5 litres 30 litres	Pompspray 1 litre 5 litres 30 litres	5 litres 30 litres	5 litres 30 litres	5 litres 30 litres

^{*} Classe A3 - n.c. Non concerned



ABchimie manufactures a range of products to help you in manufacturing in convenient packaging as Freezer, Foam, lubricant, conformal coating, solvent with brush or not.

These products are ideal for use in maintenance and servicing in and out of the factory to clean and to protect. The range is proposed in aerosols, syringes, pens... different small packagings.









You need some help? Contact us.



REFERENCE	APPLICATION	PACKAGING	SOLD BY
Solvent / Cleaner DET400B ISO200 ISO01L LCD100 NCC400 NCE400C NCI400 NEG400 NPP30L NTT400 RNG01L RNG100 SND400B SND P10ML	Label remover Isopropyl alcohol Isopropyl alcohol Screen cleaner Paste and adhesive cleaner Contact cleaner No-Flammable contact cleaner Ink cleaner Versatile cleaner Antistatic cleaner Rubber roller restorer PCB cleaner	Aerosol 400ml net Aerosol 200ml net 1 Liter Pumpspray 100ml Aerosol 400ml net Aerosol 400ml net Aerosol 325ml net Aerosol 400ml net 30 Liters Aerosol 400ml net 1 Liter Pumpspray 100ml Aerosol 400ml net Pen 10ml	12 12 6 12 12 12 12 12 1 12 6 12 12
Conformal coating AVR80 BA F10 ML AVR80 BA P10ML LDM 250ML SVP52 10ML SVR99 10ML VBR 10ML	Non-toxic Acrylic removable coating Non-toxic Acrylic removable coating Pelable mask (latex) Silicone resistant coating Silicone removable coating Red blocking coating	Flask 10ml Pen 10ml Bottle 250ml Flask 10ml Flask 10ml Flask 10ml	12 12 12 12 12 12 12
Service aids ABsouffle ABmousse ABduster ABfroid CCY20	High powered airduster Powerful foaming cleaner Airduster Freezer Cyanoacrylate	Aerosol 335ml net Aerosol 400ml net Aerosol 335ml net Aerosol 335ml net Flask 20ml	12 12 12 12 12 12
Lubricants DSU400 LSP400 LSU400 LTM400 CLD400	Universal silicone mould release Dry lubricant Universal silicone lubricant Multi purpose oil Deoxidiser lubricant	Aerosol 400ml net Aerosol 400ml net Aerosol 400ml net Aerosol 400ml net Aerosol 400ml net	12 12 12 12 12 12

UV RESINS AND UV GLUES





UV resins and glues are especially formulated to ensure an optimal protection for your electronic components but also to answer to a large range of applications.

These products cure with **UV from Mercury lamp** (UVA, B and C) or **LED lamp** (UV 395nm).

This technology permits to supply a large range of product in **thin or thick applications**, **colorless and** permits to gain in process, floor place and energy if you are working with the **LED curing system**.

UV Resins

ABchimie brings you **innovative and ecologic formulations** as the best product to protect your electronic devices. Our products will permit you to add locally a thick film on a sensitive component like a **glob top**, to bring a thick **thixotropic resin** to unify to big component against vibrations.

Resins are **colorless or transparent** and offer **adhesion** on many substrates. A large range of viscosities and **chemical resistance** are available.

If no one resin answers to your application, our laboratory can develop a specific product to answer to your specifications

UV Glues

UV glue are formulated to seal various subtracts as Aluminium, Glass, metal, various plastic (PC,PMMA,PVC,ABS....). Glues react immediately when expose to UV light. ABchimie UV glues are colorless or transparent, then the range can be used for some optical application. Our range can bring an answer for all gluing application in industrial, perfume, lighting, glass application...

How to choose a resin:

To choose the most appropriate resin, it is important to clearly define your needs :

- Norms
- Environment
- Repairability y/n
- Electrical Characteristics if need
- Method of application
- Operating temperature



You need some help to choose? Contact us.

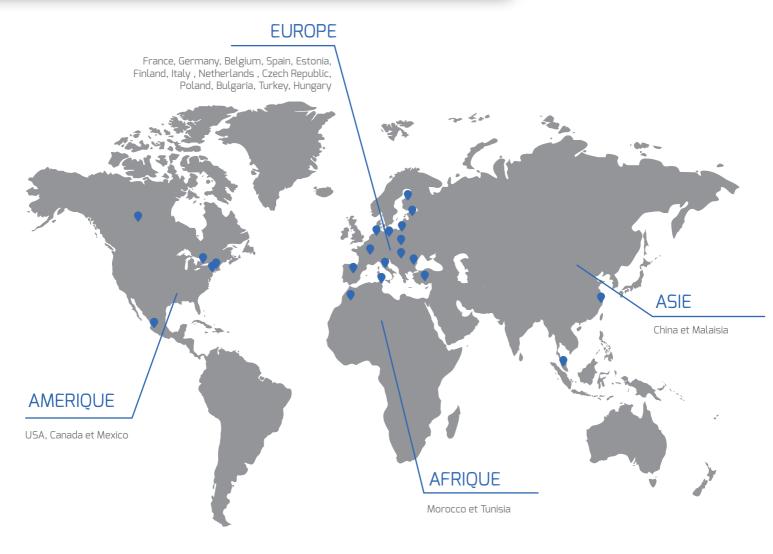
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		UV RESII	NS		
	ABchimie 225UV	ABchimie 4000UV	ABchimie 15K-UV	ABchimie 42K UV	ABchimie 6025UV T
Nature	Polyester Acrylate	Acrylate	Polyester acrylate	Urethane acrylate	Urethane acrylate
Colour	Colorless	Transparent	Colorless	Transparent	Colorless
Thickness	0 – 5mm	0 - 500μm	0 -5mm	0 – 5mm	0 – 3mm
Viscosity (cSt, à 20°C)	16 000	4 000	15 000	42 000	Thixotrope
Hardness (Shore)	D40	/	D60	D30	A60
Humidity resistance	Yes	Yes	Yes	Yes	Yes
Stripper	DVP	/	/	DVP	DVP
UV curing	UV (Hg) Also with LED (395nm)	UV (Hg) Also with LED (395nm)	UV (Hg)	UV (Hg) Also with LED (395nm)	UV (Hg) Also with LED (395nm)
LED compatibility	Yes	No test	Yes	No test	No test
UV resistance	No	No	Yes	No	No
Packaging	Syringe 30ml	Syringe 30ml	Syringe 30ml	Syringe 30ml	Syringe 30ml
	1 kg	1 kg	1 kg	1 kg	1 kg
	5 kg	5 kg	5 kg	5 kg	5 kg

		UV GLUES		
	ABchimie 9725 UV	ABchimie 9111 UV	ABchimie 9425 UV	ABchimie 9005UV
Nature	Urethane acrylate	Urethane acrylate	Urethane/Polyester acrylate	Urethane acrylate
Colour	Colorless	Transparent	Colorless	Colorless
Viscosity (cSt à 20°C)	64 000	10 000	40 000	72 000
Hardness Shore	25-30	45 – 50	55-60	20-25
UV curing	UV (Hg) Also with LED (395nm)			
UV resistance	Yes	Yes	No	Yes
		Tensile strengh (Mpa)		
Glass/Glass	2	2	2	3
Glass/Alu	2	3	3	3
Glass/PC	0.1	1	2	1
Glass/PMMA	1	3	2	2
Glass/ABS	1	1	1	2
Glass/PVC	2	1	1	1
PC/PC	-	0.4	1	-
PC/Alu	0.1	1	2	1
PC/ABS	-	1	3	2
PC/PA 6.6	-	1	1	-
PMMA/PMMA	1	1	1	1
PMMA/Alu	1	3	1	2
Packaging	Syringe 30ml 1 kg 5 kg			

ABchimie distributors:



Find our distributors on www.abchimie.com



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