

# Adhesives and Tapes

## Product Catalogue



## High Performance Adhesive Technology

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# Introduction



Bay Plastics Ltd are plastic stockist's, plastic designers and plastic fabricators of semi-finished plastic materials, supplying customers all over the world with quality plastic products, design services and plastic fabrication products at competitive prices.

Based in a 3700 sq mtr (40,000 sq ft) building in North Shields in the North East of the United Kingdom, Bay Plastics offers an extensive range of stock complimented by design and fabrication services to accommodate the diverse market for semi-finished plastic products. Since August 2011, substantial investment has been made in extending our building in a new plant, machinery and CAD/CAM capacity including a state of the art Schelling CNC beam saw, thus expanding our capacity and service offering.

# Structural Adhesives

## Moisture curing MS Polymer adhesives

MS Polymers demonstrate all of the flexibility, exceptional sealant properties and resistance to UV that a Silicone has, but also has many of the attributes of a Polyurethane such as high strength, chemical and weather resistance.

MS Polymer adhesives cure by the absorption of ambient and surface moisture, typically taking up to 24 hours to cure to a depth of 3mm. Flexible MS Polymers are ideal for bonding substrates that have different thermal expansion rates and/or for those applications that require a high strength, flexible bond.



### Eurobond SOLO

Eurobond SOLO is a one part, moisture curing, high strength structural adhesive. The cured adhesive is flexible, resistant to water, salt water, oils and most common solvents. SOLO has a fast initial grab and will bond a wide range of different substrates. SOLO withstands temperatures of -40°C to +150°C. SOLO has been designed to hold unsupported components against a vertical place or soffit soon after application. For most applications primerless adhesion can be obtained. Available in white.



### Eurobond MULTIFIX

Eurobond MULTIFIX is a one part, moisture curing, high strength structural adhesive. The cured adhesive is flexible, resistant to water, salt water, oils and most common solvents. MULTIFIX has a fast initial grab and will bond a wide range of different substrates. MULTIFIX withstands temperatures of -40°C to +150°C. MULTIFIX is non-hazardous and contains no volatile organic compounds, acids or halogens. The material does not shrink on curing and can be used in wet conditions. Available in either white or grey.



### Eurobond CLEARFIX

Eurobond CLEARFIX is a single component, high strength transparent, flexible adhesive and sealant based on MS polymer hybrid technology. CLEARFIX offers excellent adhesion to a huge range of substrates, whilst providing toughened flexibility throughout the bondline. CLEARFIX withstands temperatures of -20°C to +150°C. It also has a unique adhesion promoter which allows CLEARFIX to be used on damp surfaces. CLEARFIX is non hazardous. Available in standard grade or UV stable grade.



### Eurobond QUICKFIX

Eurobond QUICKFIX is a non hazardous, high quality fast curing, flexible 2-part MS Polymer adhesive supplied in a 290ml cartridge to fit most sealant applicator guns. It is suitable for applications where a quick cure and high strength permanently elastic bond is required or for applications where the bond design does not allow the normal penetration of atmospheric moisture. Apply in temperatures between +5°C and +40°C. QUICKFIX exhibits good resistance to water, UV, aliphatic solvents, mineral oils, grease, diluted inorganic acids and alkalis.



# Structural Adhesives

## Two part 'Toughened Acrylic' structural adhesive

Our Penloc range of fast curing, 2-part structural adhesives cure by mixing in a nozzle fitted to the cartridge as the adhesive is expelled onto the substrate.

These highly engineered and technically advanced adhesives are very strong, weather, chemical shock and vibration resistant. They will bond almost any substrate in any combination. Refer to individual technical datasheets or contact our technical team for more information, or to discuss your specific application.



### PENLOC 1:1

A 2-part toughened acrylic structural adhesive. It has extraordinary bond strength on a very large range of substrates. PENLOC 1:1 will cure to handling strength in 3 to 5 minutes and fully cure in 1 hour. Available in 12ml, 25ml, 50ml, 380ml cartridges and 5kg kits.



### PENLOC HP

A high temperature 2-part toughened acrylic structural adhesive, which is ideally suited to bonding metal pieces that require powder coating after they have been bonded. Fast curing in 3 to 5 minutes and able to tolerate 180°C for a maximum of 20 minutes.



### PENLOC 1:1R

A unique non flammable and low odour toughened acrylic structural adhesive. It is ideally suited to workshops or confined workspaces with minimal ventilation. A fantastic product for 'on-site' applications as it does not leave an odour.



### PENLOC 1:1RVT

A unique non flammable, low odour, thick, 2-part structural adhesive. It exhibits excellent gap fill and fast cure speeds typically 3 to 5 minutes to handling strength and 4 hours to fully cure. Penloc RVT will bond many dissimilar materials and has excellent resistance to moisture.



### PENLOC 1:1VT PLUS

A very thick, 2-part structural acrylic adhesive. It gives outstanding bond strength on engineering plastics such as ABS, rigid PVC, and polycarbonate and acrylic substrates. It also exhibits amazing strength when bonding metal.



### PENLOC GTI CLEAR

Penloc GTI clear is a fast curing clear structural adhesive. It is ideally suited for bonding glass or acrylic or where a visible bondline will reduce the aesthetics of a finished product. Available in 50ml cartridges.



# Penloc Product Selector Guide

## Selecting the right Penloc product for your application

	Penloc 1:1 Fast Cure	Penloc GTI Clear Fast Cure Clear	Penloc 1:1R Non Odour, Non Flammable	Penloc 1:1RVT Thick, Non Odour, Non Flammable	Penloc 1:1HP Suitable for powder coating after bonding	Penloc VT Plus Thick, 15 minute cure, high temperature	Eurobond SOLO Fast grab, flexible, high strength, can bond in wet	Eurobond MULTIFIX Strong initial bond, flexible, high strength	Eurobond QUICKFIX Fast cure, 4 hours, flexible	Eurobond CLEARFIX Flexible, transparent, high strength
Mix ratio	1:1	1:1	1:1	1:1	1:1	1:1	One Component	One Component	1:1	One Component
Cure time	5mins	5mins	5mins	5mins	5mins	15-18mins	30mins	30mins	30mins	30mins
Full Cure	1 hour	1 hour	4 hours	4 hours	1 hour	1 hour	24 hours	24 hours	4 hours	24 hours
Temp (°C)	-55 to +125	-55 to +125	-20 to +120	-20 to +120	-55 to +180	-40 to +180	-20 to +150	-20 to +150	-20 to +90	-20 to +150
Cartridge Size (ml)	12, 25, 50, 380, 5kg kit	50	12, 25, 50, 380, 5kg kit	50, 380, 5kg kit	50, 380, 5kg kit	50, 400	290	290	300	300
Powder Coat	No	No	No	No	Yes	Yes	No	No	No	No
Unique Features	Do not need mixer nozzle for some applications. Can be applied bead on bead	Ideal for bonding clear substrates	Non odour, non flammable, ideal for poorly ventilated areas and on-site work	Very thick, non flammable, non odour	Bonded assemblies can be coated. Maximum oven temp of 180°C	Very thick, no sag. Bonded assemblies can be powder coated at 200°C in tunnel oven for maximum 20 mins	Fast grab, flexible, very strong. Ideal for high humidity environments	Fast, flexible, strong UV, saltwater and chemical resistant	Fast curing, flexible, very strong, ideal for bonding most common construction materials	Flexible, transparent, strong



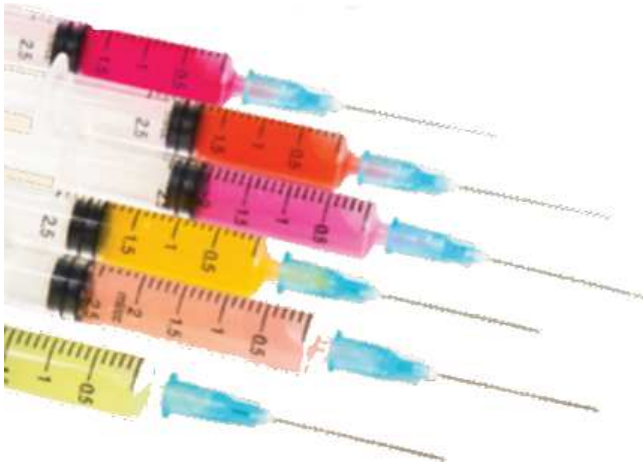
# Cartridge, Applicator Gun & Nozzle Selector Guide

	50ml App Gun	380ml HD Gun	400ml Gun	AC310 UF Gun	Mini Tip	Mini Mixer	3" Static Mixer	380ml Taper	380ml Paramix	400ml Static Mixer
Penloc 1:1 – 12ml					X	X				
Penloc 1:1 – 25ml										
Penloc 1:1 – 50ml	X				X	X				
Penloc 1:1 – 380ml		X						X	X	
Penloc GTI Clear – 50ml	X						X			
Penloc 1:1R – 12ml					X	X				
Penloc 1:1R – 25ml										
Penloc 1:1R – 50ml	X				X	X				
Penloc 1:1R – 380ml		X						X	X	
Penloc VT Plus – 50ml	X						X			
Penloc VT Plus – 400ml			X					X		X
Penloc 1:1 RVT – 50ml	X						X			
Penloc 1:1 RVT – 380ml		X						X		
Penloc 1:1 HP – 50ml							X			
Penloc 1:1 HP – 380ml		X								
Eurobond SOLO – 290ml				X						
Eurobond MULTIFIX – 290ml				X						
Eurobond QUICKFIX – 300ml				X						
Eurobond CLEARFIX – 300ml				X						

## Accessories, Applicator Guns & Mixer Nozzles



# Vitralit UV Adhesives – Clear Plastics & Glass



## Vitralit medical grade UV adhesives (USP Class VI)

UV curing adhesives are designed to bond plastics, glass and metals by the application of high intensity UV and/or visible light to the adhesive. This 'cure on demand' characteristic enables the manufacturing process to be cleaner, faster and more user and environmentally friendly than common solvent based materials.

Honle UV light equipment can specify a UV lamp system to suit your application.

- ❖ Fast cure times
- ❖ Clean bond lines
- ❖ Cure on demand
- ❖ User friendly

	Typical Applications	Curing	Colour	Characteristics
Vitralit 1702	Medical plastics bonding USP Class VI	UV	Amber	Good adhesion to plastics. Suitable for gas and irradiation sterilisation.
Vitralit 6108T	For glass/metal ISO Class VI ISO 10993	UV, Visible Light, Thermal with Activator	Transparent	Multifunctional, excellent adhesion, resistance to yellowing.
Vitralit UV 4050	Medical disposable products and thermoplastics	Visible Light	Clear, Transparent	Fluorescing, Biocompatible, Resistant against ETO/Gamma sterilisation. Very elastic.
Vitralit 7989	Assemblies for chest drain bags, anaesthesia masks, arteriograph manifolds etc	UV	Clear to slight yellow	Bond polycarbonate, PVC, polyester and many other plastics.

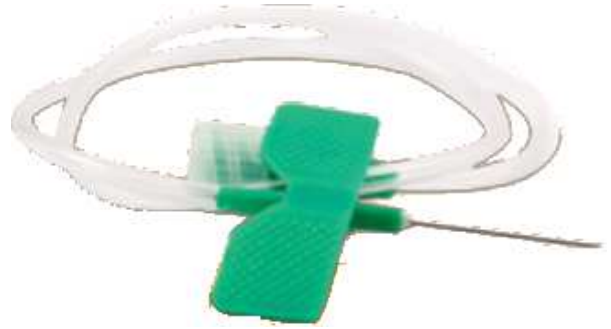


# Cyanolit medical grade instant adhesives

## Cyanolit medical grade instant adhesives (USP Class VI)

One part Ethyl based cyanoacrylate adhesives are designed to rapidly bond plastics and metals.

- ❖ Suitable for bonding ABS, PVC, latex, polycarbonate, styrene, acrylics and thermoset plastics.
- ❖ Also bonds difficult materials such as PP, PE and rubber.
- ❖ USP Class VI tested – safe and non-toxic.
- ❖ Extremely fast curing.
- ❖ Solvent-free, excellent dispensing properties in automated systems.



	Typical Applications	Curing	Colour	Characteristics
Cyanolit 203TX	Bonding rigid PVC, polycarbonate, ABS, polyamide	15 to 120 secs depending on substrates	Transparent	Heavy paste Ethyl-Cyanoacrylate, ideal for bonding synthetic and porous material or bridging-over a junction to 0.25mm.
Cyanolit 232	PVC, ABS, PMMA, Rubber, Stainless Steel	5 to 15 secs depending on substrates	Transparent	Medium viscosity. Bonded parts can be adjusted for a few seconds post bonding.
Cyanolit 241F	Rigid PVC, ABS and PA 6.6	8 to 22 secs depending on substrates	Transparent	Low viscosity, universal adhesive bonds plastics, metals, rubber and low density synthetic foam.
Cyanolit 252F	Rigid PVC, PMMA, Rubber, ABS, Polycarbonate	5 to 10 secs depending on substrates	Transparent	Retarded curing, medium viscosity. Ideal for bonding plastics/plastics and plastics/metals.
Cyanolit 253TX	PVC, PMMA, Rubber, Steel, Polycarbonate	5 to 15 secs depending on substrates	Transparent	Ideal for bonding plastics, metals and porous material or bridging-over a junction to 0.25mm.

# UV curing adhesives for bonding clear plastics

## UV curing adhesives for bonding clear plastics

Our range of UV curing adhesives are designed to bond acrylic work pieces together in seconds, without stressing the acrylic and causing crazing or stress fractures as so often happens with solvent adhesives such as Tensol.

UV adhesives cure when exposed to high intensity UV light, resulting in high strength, transparent & clean bond lines.

### VITRALIT 7641 LV – very low viscosity

A very low viscosity UV curing adhesive that is designed to 'wick' or capillary up to 20mm between two surfaces. It is ideal for use with mitred and/or butt joints.



### VITRALIT 506-40-1 – semi flexible

A high strength, medium viscosity UV curing adhesive that can tolerate vibration, shock and impact stresses.



## UV curing adhesives for bonding glass

Our UV curing adhesives are designed to bond glass work pieces together in seconds. UV adhesives cure when exposed to high intensity UV light and/or visible light, resulting in high strength, transparent and clean bond lines.

### VITRALIT 6441 – standard grade

Standard grade, optically clear UV curing glass bonding adhesive. It exhibits high strength and moisture resistant bond lines. 6441 can be used on glass to glass or glass to metal combinations.



### VITRALIT 6441 LV – low viscosity

A low viscosity grade, optically clear, UV curing glass bonding adhesive. It demonstrates excellent capillary action, high strength and moisture resistant bond lines. 6441 LV can be used on glass to glass or glass to metal combinations.



### VITRALIT 6441 VT – thick viscosity

A thick viscosity grade, optically clear, UV curing glass bonding adhesive. It demonstrates good gap fill capability, high strength and moisture resistant bond lines. 6441 VT can be used on glass to glass or glass to metal combinations.



### Bevel Bonder

Bevel Bonder is a slightly flexible, medium viscosity UV curing glass bevel bonding adhesive. It demonstrates good clarity, strength, moisture resistance and excellent gap fill properties.



### VITRALIT GELFAST – flexible gel

A unique very thick, UV curing adhesive gel. It is ideal for bonding glass and metal combinations. It has excellent gap fill, is semi flexible and exhibits high bond strength. It can also be used in high humidity environments. Gelfast can be used on glass to glass or glass to metal.



UV HAND LAMP



UV PROTECTIVE GLASSES



SURFACE CLEANING WIPES



SCRAPER



# Vitralit & Elecolit Conductive Adhesives

## Electrically conductive adhesives

Elecolit – is a range of electrically conductive and thermally conductive adhesives. Elecolit conductive adhesives are synthetic resins filled with metallic or inorganic filler materials.

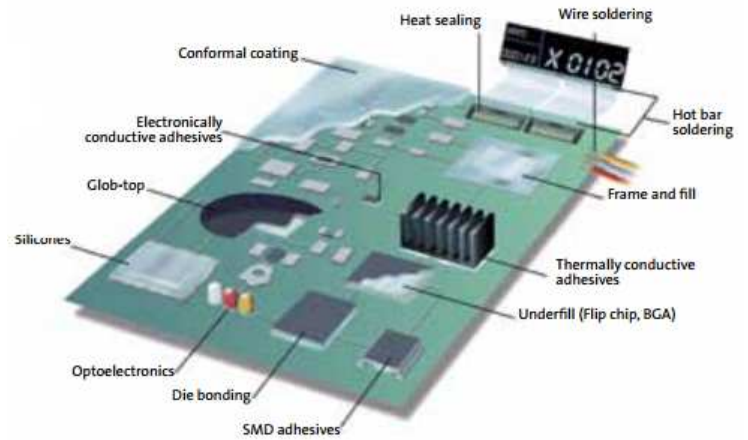
- ❖ ICA Isotropic Adhesives
- ❖ ACA Anisotropic Adhesives
- ❖ TCA Thermally Conductive Adhesives

One component room temperature curing products.

Benefits include simple processing through dispenser, screen printing or needle transfer. No mixing required.

Two component products

Benefits include long shelf life, curing at room temperature possible, very short cure times possible at higher temperatures, low-viscosity settings possible.



	Applications	Base	Viscosity (mPas)	Curing	Temp Resist (°C)	Contact Resist (ohms x cm)	Characteristics
Elecolit 3024	Heat sensitive components	2K Epoxy	2800	15 mins at 120°C	-40 to +150	0.0005	Snap cure at high temps. Pot life 8hrs. Cure as low as 80°C
Elecolit 3012	Chips & electrical components	1K Epoxy	Viscous	10 mins at 150°C	-40 to +200	0.013	Dispenser, screen printing, good conductivity, good gap fill capacity
Elecolit 3043	Antenna printing, ceramic fuses	1K Epoxy	4000 - 5000	10 mins at 150°C	-40 to +180	0.015	Very low viscosity, good dispensability, small fillers Ag>10u, low ion content
Elecolit 3423	Flexible component bonding	2K Epoxy	Viscous	5mins at 150°C	-60 to +175	0.0002	Flexible variant of Elecolit 323, curing from 80°C, pot life 2 days, good dispensability
Elecolit 3061	LCD, flexible circuits	1K Epoxy	35000 - 45000	10 mins at 150°C	-40 to +180	0.0001	Anisotropic, electrically conductive, ion pureness <10ppm
Elecolit 3653	Flexible component	1K Epoxy	8000 - 10000	5 mins at 150°C	-40 to +180	0.005	Highly flexible, temperature, vibration and impact resistant
Elecolit 3063	Flexible circuits	1K UV Acrylate	Thixotropic	1 min at 200°C	-40 to +150	0.001	Anisotropic, UV curing for transparent film with printed conductive paths, highly flexible

# Vitralit & Elecolit Conductive Adhesives

	Applications	Base	Viscosity (mPas)	Curing	Temp Resist (°C)	Contact Resist (ohms x cm)	Characteristics
Elecolit 312	Electrical / electronic engineering, screen printing	1K Epoxy	Firm Paste	5 mins at 180°C	-40 to +150	0.005	Viscous filler, does not bleed, for large gaps, stable edges
Elecolit 323	Component bonding / electronics	2K Epoxy	45000	4 mins at 150°C	-60 to +175	0.0002	Pot life 96hrs, cures at low temps, suitable for semiconductors, good dispensability
Elecolit 325	Heat sensitive components	2K Epoxy	Viscous	5 mins at 150°C	-40 to +150	0.0005	Short times at high temps, dispensers, screen print, very good conductivity
Elecolit 327	High temperature range	1K Polyamide	8500	1 hour at 150°C	-40 to +150	0.0001	High electrical and thermal conductivity, good on gold, aluminium, tantalum, germanium and ceramics
Elecolit 336	Heat sensitive components	2K Epoxy	Viscous	5 mins at 150°C	-40 to +150	0.001	Cures at room temp, dispenser printing & screen printing. Inexpensive
Elecolit 342	Electrically conductive contacts, HF shielding	1K Acrylate	1000 - 2000	10 mins at 120°C	-40 to +150	0.001	Latex like film, low mech strength, good adhesion to many substrates, room temp curing possible
Elecolit 414	Flexible conductive paths on film	1K Polyester	20000 - 25000	5 mins at 150°C	-55 to +200	0.0005	Extremely flexible, very good conductivity, can be kinked and crumpled, abrasion proof

# Thermally Conductive Adhesives

## Thermally conductive adhesives

The best thermal conduction coefficients can be achieved with metallic fillers. They also make the adhesive electrically conductive, which is undesirable for some applications and should be verified before use.

- ❖ Bonding of power modules
- ❖ Spacers for coating thickness testing
- ❖ Bonding of heat sinks
- ❖ Applications that release heat energy

### Elecolit – Thermally Conductive

	Applications	Base	Viscosity (mPas)	Curing	Temp Resist (°C)	Contact Resist (ohms x cm)	Characteristics
Elecolit 6601	Heat sinks, sensors	1K Epoxy	12000 - 20000	20 mins at 150°C	-40 to +200	1.05	Good adhesion to metals, good flow behaviour, high strength, good dispensability
Elecolit 6603	Bonding magnets and heat sinks	1K Epoxy	95000 - 115000	20 mins at 150°C	-40 to +200	1.3	Somewhat flexible, impact and temperature resistant, high viscosity
Elecolit 6616	Sealant for hardening at room temperature	2K Epoxy	Viscous	2 hrs at 80°C	-50 to +150	1.01	Pot life 45mins, flexible at low temperatures. Vibration and impact resistant, visco-plastic

### Vitalit – Thermally Conductive

	Typical Applications	Viscosity mPas	Temp Resist °C	Curing	Colour	Characteristics
Vitalit 6129	Heat sink bonding, die attach	30000 to 40000	-40 to +180	UV, thermal or with activator	White	Good adhesion to glass, aluminium & ceramics. Good moisture resistance
Vitalit 6138	Heat sink bonding, die attach	150 to 170	-40 to +180	UV, Thermal	White	High chemical resistance, good heat conductivity, spacer 40u

# Thermally Conductive Adhesives

## ELECOLIT 6601

A 1K thermally conductive adhesive with excellent metal bonding properties, which can also be used as a casting mass. This is a single component product with excellent flow properties and can be processed via dispenser, screen printing, coating knife or spatula.

## ELECOLIT 6603

A 1K thermally conductive, slightly flexible adhesive with excellent metal bonding, which can also be used as a casting mass. This is a single component product with excellent flow characteristics and can be processed via dispenser, screen printing, coating knife or spatula.

## ELECOLIT 6616

A high-strength, 2K thermally conductive epoxy adhesive processed in a 1:1 mixing ratio. Its toughness provides an excellent combination of cutting and peeling resistance. The product is also superior in terms of vibration and shock resistance. Even at very low temperatures, this adhesive maintains its flexibility. Elecolit 6616 is a high performance adhesive, which has successfully passed 500 temperature changes from -50°C / +150°C.

## VITRALIT 6129

A filled, thermally conductive adhesive for mounting heat sinks and heat sensitive electronic components to boards or any application where it is desirable to increase thermal conductivity between assembled parts. It is cured with UV-light, activator or heat as low as 120°C. It also exhibits excellent moisture resistance.

## VITRALIT 6138

A UV and thermally curable adhesive. It has a good resistance to chemicals, an application range for high temperatures and extraordinary thermal conductivity. The incorporated 40um spacers guarantee equal spacing between the building components and the carrier material, even during automatic manufacturing.

# Vitralit Conformal Coatings & Glob Tops

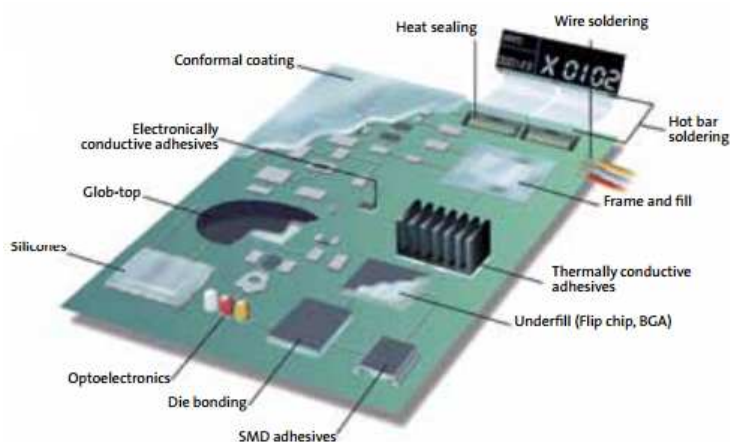
## Conformal Coatings

### Typical Application:

Protection of circuit boards from environmental factors.

### Properties of the adhesive:

- ❖ Flexible over large areas, excellent running characteristics.
- ❖ UV-curable epoxy resins and acrylates with dry surface.
- ❖ Single component solvent-free, partly ion-free.
- ❖ Transparent, scratch and chemical resistant.
- ❖ Thermally stable.
- ❖ Fluorescing possible for detection of dispensed product.
- ❖ Sprayable with ASYMTEC robot, also for partial coating etc.



	Typical Applications	Viscosity (mPas)	Temp Resist (°C)	Curing	Colour	Characteristics
Vitralit 2007F	Conformal coating	300 - 500	-40 to +180	UV-A 105°C	Transparent	Excellent chemical resistance
Vitralit 2009F	Conformal coating	70 - 150	-40 to +180	UV	Transparent	Flexible, Autoclavable, Excellent chemical resistance
Vitralit 4451	Conformal coating, foil bonding	600 - 800	-40 to +130	UV	Transparent	Quick curing, low shrinkage, very elastic

## VITRALIT 2007F

A combined cationic UV and thermal curable coating compound, based on epoxies. The surface is dry after the UV curing process; stability will be reached once the coating has cooled down. Deep layers or shadowed areas can be post cured thermally. Vitralit 2007F is a flexible coating, can be autoclaved and is highly chemical resistant. When stored properly (+5°C / no UV radiation) in closed original boxes, the product can be stored for 6 months. The product is fluorescent and can be recognised with backlight.

## VITRALIT 2009F

A combined cationic UV and thermal curable coating compound, based on epoxies. The surface is dry after the UV curing process; stability will be reached once the coating has cooled down. Deep layers or shadowed areas can be post cured thermally. Vitralit 2007F is a flexible coating, can be autoclaved and is highly chemical resistant. When stored properly (+5°C / no UV radiation) in closed original boxes, the product can be stored for 6 months. The product is fluorescent and can be recognised with backlight.

## VITRALIT 4451

A UV curable urethaneacrylate for conformal coating applications. It has excellent corrosion protection. It is suitable for flexible circuits. Vitralit 4451 can be viscosity adjusted for a variety of application methods such as selective coating, dispensing etc.

# Glob Top & Chip Encapsulation

## Glob top, chip encapsulation

### Typical Application:

Glob-top: Protection of chip and bonding wires.

### Properties of the adhesive:

- ❖ UV and thermally curing.
- ❖ Single component epoxy resins, ion-free & thermally conductive.
- ❖ Good acid resistance, low water absorption.
- ❖ Frame & fill for components with small pitch spacing.
- ❖ Can be used wet-in-wet.
- ❖ Black products also available.

### Thermal Curing

- ❖ Protection of chips and bonding wire.
- ❖ Black single component epoxy resins, thermally conductive.
- ❖ Good acid resistance, low water absorption.



	Typical Applications	Viscosity (mPas)	Temp Resist (°C)	Curing	Colour	Characteristics
Vitalit 1691	Glop Top	280000 - 310000	-40 to +180	UV/Thermal	Black	High ion pureness. Excellent temperature resistance
Vitalit 1657	Glop top for large/high parts	120000 - 130000	-50 to +150	UV	Light Grey	Low ion content, Quartz-filled, Thixotropic, flexible
Vitalit 1650	Chip covering, small chips	6000 - 9000	-40 to +150	UV	Grey	Flexible, low water absorption, grain size up to 150um
Vitalit 1600LV	Glop top sealant for larger chips	5000 - 6000	-40 to +180	UV/Thermal	Grey	High chemical resistance, high Tg, high strength
Vitalit 1671	Dam compound	250000 - 300000	-40 to +180	UV/Thermal	Grey	Stable, wet-on-wet application with filler material, ion-free



# Glob Top & Chip Encapsulation

## VITRALIT 1691

A UV, as well as thermally-curing, black dyed Glob-Top substance. It is known for its high ionic purity ( $\text{Na}^+ < 10 \text{ ppm}$ ,  $\text{K}^+ < 10 \text{ ppm}$ ,  $\text{Cl}^- < 10 \text{ ppm}$ ) and shows extreme temperature resistance. Compared to the customary fillers Vitralit® 1691 offers a fast UV- surface fixation. The following short post curing process with radiation implies that there is no limit to the layer strength. Under perfect storage conditions ( $+5^\circ \text{C}$ / no UV- radiation), kept in closed original containers, Vitralit® 1691 can be stored for about six months.

## VITRALIT 1657

A flexible, Thixotropic glob-top material for COB applications especially on flexible PCB's. It is one component, solvent free and very fast curing with UV-A (32 - 450nm). Vitralit® 1657 has a low ionic content  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^- < 5 \text{ ppm}$  and meets the Rohs requirement.

## VITRALIT 1650

An epoxy Glob-Top for chip resist applications. One of the remarkable features of the Vitralit® 1650 is its special purity and its low ionic concentration ( $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^- < 5 \text{ ppm}$ ). Vitralit® 1650 provides all advantages of the First Generation's chip coating material, and in addition has a better adhesion and temperature resistance.

## VITRALIT 1600LV

A cationic UV-curable epoxy that can also be cured thermally at low temperatures. It was especially developed for application in electronics and electrotechnics having a high Tg, very good acid resistance and a low water absorption. Vitralit® 1600 LV has a lower viscosity than Vitralit 1600 and is therefore especially applicable for some problems in dosing. Vitralit® 1600 LV is also outstanding for its special purity and the low ionic concentration ( $\text{Na}^+ < 5 \text{ ppm}$ ,  $\text{K}^+ < 5 \text{ ppm}$ ,  $\text{Cl}^- < 5 \text{ ppm}$ ). Before treatment the product must be homogenized. This is a dual curing product, which means in deep layers or shadowed areas it can be cured by thermal heating.

## VITRALIT 1671

A stable dam material on an epoxy resin basis, which can be UV-A cured as well as thermally cured at low temperatures. The dam can be cured wet on wet with the filler material. Vitralit® 1671 features high ionic purity ( $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^- < 5 \text{ ppm}$ ), good heat conductivity and low humidity absorption properties. If stored properly in the refrigerator at ( $+ 5^\circ \text{C}$ /no UV radiation exposure), the product has a shelf-life of 6 months in closed original packaging.

# Foamed Acrylic Adhesive Tape

## Foamed Acrylic Adhesive Tape

Foamed acrylic tape is a 'high performance' type of adhesive tape which is widely used in industry for bonding substrates together, or as a 'third hand jig' to either hold substrates in place whilst an adhesive cures and bonds them together or while they are routed or tooled.

Foamed acrylic tape is pure adhesive that has been foamed and formed into a tape and partially cured by UV light to enable it to be wound onto a roll. The adhesive tape, when applied to a substrate is activated by applying direct pressure with a roller along its length. The tape will 'wet out' or 'flow very slowly' over a 72 hour period, creeping into every nook and cranny on the substrate surface to give 100% coverage. Typically 50% of the bond strength is achieved in 20 minutes, 90% is achieved in 24 hours and 100% in 72 hours. Foamed acrylic tape is ideal for bonding substrates with dissimilar thermal expansion values, applications that are subject to shock, impact or vibration, or where a water tight or airtight seal is required. In addition to rolls of tape, Eurobond Adhesives Ltd offer bespoke 'Die Cut' tapes where a specific pattern is cut into the tape to enable the user to fit the tape 'exactly' to a shaped product surface. They are simple to use, clean, efficient and are widely used in automotive applications, bus and truck manufacture, electronics, commercial signage, construction, metal and plastic fabrication, glass and windows.

Our standard width sizes are 12mm, 19mm, 25mm and 50mm. For larger bespoke width sizes please call our technical team.



# Foamed Acrylic Adhesive Tape

	Colour	Thick (mm)	Foam Density	Liner Type	Dynamic Shear	180°C Peel KG/25mm	Tensile KG/cm2	Min	Max	Max Cont	
EB4040W	White	0.4	850	Film	8	3.5	11	-40	160	100	High bond strength for a wide range of applications. Different thicknesses give a choice of tape, allowing flexibility. Bonds well to a wide range of metals, plastics, ceramics and composites.
EB4064W	White	0.64	850	Film	7.2	4.1	10.5	-40	160	100	
EB4110W	White	1.1	850	Film/Paper	5.7	4.5	9.9	-40	160	100	
EB4200W	White	2	850	Film	4.8	3.5	6.55	-40	160	100	
EB 4025C	Clear	0.25	1000	Film	14.5	1.6	10.1	-40	250	150	Gives high shear and peel performance and very high temperature resistance.
EB4050C	Clear	0.5	1000	Film/Paper	4.9	2.1	7.03	-40	150	90	For bonding glass, clear plastics and applications requiring an invisible bondline. Acts as a very good seal and bonding tape. Applications in solar energy industry, glass partitions, windows & doors.
EB4100C	Clear	1	1000	Film/Paper	4.9	2.7	7.03	-40	150	90	
EB4150C	Clear	1.5	1000	Film	4	3.29	6	-40	150	90	
EB4200C	Clear	2	1000	Film	4	3.3	7	-40	150	90	
EB6040G	Grey	0.4	780	Film/Paper	7	3.3	7.5	-40	160	100	This series has been developed for the automotive industry and has excellent adhesion to automotive plastics and painted steel. Other applications in the sign industry, construction industry and automotive aftercare market.
EB6064G	Grey	0.64	780	Film	6.8	3.5	7	-40	160	100	
EB6080G	Grey	0.8	780	Film/Paper	6.5	3.7	6.5	-40	160	100	
EB6110G	Grey	1.1	780	Film/Paper	6	3.9	6	-40	160	100	
EB6150G	Grey	1.5	780	Film	5.5	3.9	5.5	-40	160	100	
EB6200G	Grey	2	780	Film	5.3	3.9	5	-40	160	100	
EB6025B	Black	0.25	780	Film	7.5	3.1	7.8	-40	160	100	
EB3040G	Grey	0.4	780	Film	8.2	6.3	10.2	-40	160	100	Low application temp & LSE. Provides a good combination of adhesion to low surface energy surfaces. Formulated for temperatures approaching freezing.
EB3120G	Grey	1.2	780	Film	7.2	6.6	8.5	-40	160	100	
EB3200G	Grey	2	780	Film	4.5	3.9	5	-40	160	100	
EB7025W	White	0.25	1500	Paper	8	1.2	9	-40	160	100	Thermally conductive. Combines excellent bonding properties with the ability to conduct heat away from source.
EB7064W	White	0.64	1500	Film	7.9	2.1	8.4	-40	160	100	
EB7120W	White	1.2	1500	Film	6	1.6	8.4	-40	160	100	
EB6064WFR	White	0.64	1500	Film	7.9	2.1	8.4	-40	160	100	Flame retardant. Have been tested and passed aerospace flammability, smoke emission & toxic gas emission requirements.
EB6110WFR	White	1.1	1500	Film	7.4	1.9	8.4	-40	160	100	
EB808	-	-	-	-	-	-	-	-	-	-	These high performance tapes are designed for general bonding & mounting applications. Typical applications include bonding Correx & Foam.
EB810	-	-	-	-	-	-	-	-	-	-	
EB815	-	-	-	-	-	-	-	-	-	-	
Soft	-	-	-	-	-	-	-	-	-	-	Clear single-sided polymer masking tape with silicone adhesive. Suitable for high temp masking & will withstand most powder coating processes.
Medium	-	-	-	-	-	-	-	-	-	-	
Hard	-	-	-	-	-	-	-	-	-	-	

# Anaerobic Adhesive Tape

## Threadlock, Pipe Sealants, Bearing Fit Compounds, Instant Gasket, Metal Epoxy & Engineer's Repair Kit

### NUTLOCK – EBA243

Nutlock EBA243 is an oil tolerant, medium strength thread locking adhesive which can be used on parts 'as received' that may have light oil film deposits on them.

### HYDRAULIC SEALER – EBA542

This is a tough, high pressure seal used on all types of threaded couplings on low, medium & high pressure lines. Ideally suited to fit valves, adaptors and compression fittings.

### PIPE SEALANT – EBA577

A low strength, high viscosity gel paste which cures rapidly, sealing instantly to 10 bar on metals in the absence of air. When fully cured it resists pressure up to 350 bar.

### BEARING KIT – EBA641

A single part, medium strength anaerobic securing compound, designed for fitting cylindrical metal assemblies such as bearings, shafts and parts which require disassembly in the future.

### RETAINER – EBA601

Ideal for securing all types of cylindrical parts, such as bearings, gears, spines, pulleys, keyways, setscrews suitable for press fits or slip fits with temperatures up to 150°C.

### ENGINEER'S REPAIR KIT - EBARK

Engineer's repair kit EBARK is an essential tool for all maintenance engineers, production engineers, mechanical engineers, service engineers, automotive engineers and facilities management engineers. The high quality carry case contains a range of our best performing threadlocking adhesives, instant gasket adhesives, bearing fit adhesives, pipe sealant, hydraulic pipe sealant, structural adhesives and instant adhesives. Whether you are working in a factory, on-site or operating from a mobile vehicle the Engineer's repair kit is essential.

### STUDLOCK – EBA270

Studlock EBA270 is a permanent general purpose adhesive for permanent threaded assemblies. It has excellent chemical resistance against fuels, lubricants, most industrial liquids and gases.

### PIPE SEALANT – EBA567

A high performance seal and lock adhesive for metal tapered pipe threads & fittings used in air compressors. Suited for stainless steel, aluminium, galvanised metal and other inert metals.

### INSTANT GASKET – EBA574

A gasket material to replace traditional paper, cork gaskets etc. Assembled parts are suitable for immediate low pressure service & once cured can resist 350 bar pressure depending on gap size.

### METAL EPOXY STICK – EBA2001

A handheld kneadable, permanent repair speciality epoxy putty. It can be applied under water. Ideally suited for repairing tanks, drums, patching holes in pipes & stopping leaks.

### RETAINER – EBA638HS – High Strength

A high performance retainer designed to give high strength retention under cyclic loading. Will retain its full strength and not suffer fatigue under load stress.



# Instant Adhesives

## Instant Adhesives - Cyanoacrylates

Cyanoacrylate or instant adhesives cure by contact with surface moisture.

The adhesive is kept in a liquid state by the suspension of an acidic stabiliser molecule. When atmospheric or surface moisture from two substrates overcomes this molecule, the adhesive polymerises (cures) into a solid thermoset plastic. Cyanolit will bond most substrates including metals, glass, plastics, stones, jewels, cork, leather and much more.



### CYANOLIT 221F

Is designed to bond difficult to bond rubbers and plastics. It allows bonding by post-assembly capillary action. Ethyl based, cure time 2-10 seconds. Working temperature -80°C to +110°C.

### CYANOLIT 241F

Is the most universal multi-use instant adhesive in our range. Ethyl based, cure time is 3-15 seconds. Working temperature -80°C to +80°C.

### CYANOLIT 202F

Is a medium viscosity adhesive for bonding thermoplastics and thermosets. Ethyl based, cure time is 3 – 20 seconds and the working temperature range is -80°C to +80°C.

### CYANOLIT 732F

Is a medium viscosity adhesive specially formulated for bonding porous materials such as wood, cork, leather etc. Ethyl based, it has a cure time of 10-20 seconds and a working temperature range of -80°C to +80°C.

### CYANOLIT 203TX

Is a high viscosity flowable gel. It allows assembly of loosely fitting parts. Ethyl based, it has a cure time of 2-10 seconds and a working temperature range of -80°C to +100°C.

### CYANOLIT 811F

Is a low bloom and low odour grade for use in bonding electronics, jewellery and acrylic. Alkyl based, cure time of 10-60 seconds and a working temperature range of -80°C to +80°C.

### CYANOLIT 403TB

Contains elastomers giving high resistance to shock, vibration and moisture. Ethyl based, cure time is 15-60 seconds and has a working temperature range of -80°C to +80°C.

### PENLOC VF

A high-strength fast curing anaerobic adhesive with a breakaway torque of 30.5Nm. VF can withstand temperatures of -55°C to +120°C.



### PENLOC ZT

Low strength anaerobic thread-locking adhesive with a breakaway torque of 12.5Nm. ZT can withstand temperatures of -55°C to +150°C.

# Metering & Dispensing Machines

## ECOSTAR 150

The Ecostar 150 is a pneumatically driven meter, mix, dispensing machine for processing 2-component silicone, polysulphide and polyurethane materials. It has an adjustable mix ratio range from 5.8:1 to 14.5:1 by volume and can process up to 2.5kg of material per minute depending on the material viscosity. It is equipped with two hand control safety device, overpressure safety device, material deficiency alarm/signal, and acoustic pot life alarm and has a base purge system. It is designed to process 200L drums part A and 20L part B catalyst.

## ECOSTAR 250

The Ecostar 250 is the heavy duty hydraulically driven, high specification model. Again, it is designed to process 2-component silicone, polysulphide and polyurethane materials. Standard equipment includes:

- Adjustable mixing ratio
- Dosage control device
- Material shortage control
- Over-pressure safety device
- Follow plate for reduced residue
- Mixing unit Alpha-Mix for PS with two mixing chambers
- Mixing unit Alpha-Mix for PU/SI with three mixing chambers
- Mixing unit Alpha-Mix for SI with anti-adhesive coating
- Low-maintenance dosing pump sealing system
- Hydraulic dosing pump drive
- Empty drum warning system for component A
- 200L drum garage for ergonomic drum change
- Relay control
- Pot life control
- Follow plate heating unit for component A (PS/PU only)
- Two-hand control unit.

## CONTI-FLOW COMPACT

The Conti-Flow meter mix dispense machines process one and more component polymers of various viscosities. The Conti-Flow can be used for bonding, sealing and casting. Due to its user friendly and ergonomic design ease of use and precise dispense reproducibility constant production quality is assured. The Conti-Flow has the capability to reduce production costs while maintaining product quality. By fully utilising the modular design concept, specific customer design requirements can be met. The following systems can be incorporated: Compact X-Y table • CNC-controlled application centre

- Robotic controlled production cell
- Universal table with static/dynamic mixing unit and pneumatic actuator for horizontal/vertical flushing and working
- Fully automated production unit.



# UV Lamps & Equipment

## UV HAND / FLOOD LAMP

The UVH255 hand lamp is an ideal budget lamp for use in curing adhesives used in acrylic/glass bonding or PCB applications. This 250Watt high intensity lamp irradiates at 365nm and is fitted with a blue glass filter to reduce glare.



## UVASPOT

A versatile UV unit for larger areas. Suitable for curing UV reactive adhesives, compounds and coatings, as well as providing black light for fluorescent purposes. 3 power steps available: 400, 1000 & 2000W. Modular concept for uniform irradiation of large areas using a combination of a large number of lamp modules. Different spectra achievable through various lamp and filter combinations. Lamp house cooling by fan or convection, with a separate ballast box. Where equipment is used to irradiate large areas, the ballast boxes can be integrated into one switch cabinet. A Black light version is available for fluorescent applications (UVASPOT 400/T-BL).



## UVACUBE 400

Basic curing chamber for curing of UV reactive coatings, adhesives and compounds as well as for sun simulation and material ageing. Closed desktop unit especially designed for manufacture by hand and laboratory use. Different spectra available through various lamp/filter combinations, irradiated area approx. 30 cm x 40 cm.



## BLUEPOINT 2 EASYCURE

Bluepoint 2 Easycure is a point source for all applications that need a high degree of UV intensity. Its high intensity means very short curing cycles. The typical lamp life is approx. 2.500 hours. A slide out module at the front panel of the housing ensures easy bulb replacement. User-friendly touch-sensitive keypad. Bluepoint point sources are suitable for a large range of applications:

- Bonding, fixing or potting of components in electronic, optical and medical applications.
- Fluorescent excitation for material testing and image processing
- High-intensity UV irradiation for chemical, biological and pharmaceutical applications.

Lamp / shutter control - The exposure time can be selected between 0.1 and 999.9 seconds. Alternatively, it is possible to enter the requested dose and the Bluepoint 2 Easycure calculates automatically the exposure time needed. The display shows the values in mW/cm<sup>2</sup> and alternatively in mJ/cm<sup>2</sup> or in J/cm<sup>2</sup>. Furthermore, the electrical lamp output can be adjusted to 60% or 100%. The unit memorizes operating hours and lamp running time.



## LED UV-PEN AND LED POWER PEN

LED UV Pen – Reliable LED point source Monochromatic spectrum around 365 nm. No start up phase. UVA intensity: 800 mW/cm<sup>2</sup>. LED Power Pen – Reliable LED point source Monochromatic spectrum around 365 nm. No start up phase. UVA intensity: 3,500 mW/cm<sup>2</sup>.



## UV METER – HIGH END AND BASIC

High End Version – Measurement of UV intensity and dosage for spot and flood cure units. Intensity and dosage measurement with up to 8 interchangeable sensors (automatic sensor recognition). Two channel measuring for different wavelength spectra. Data storage for recording measurement sequences. Auto start of measurement when minimum values are exceeded. Automatic switching between measurement ranges. Measurement values displayed in different units (mW/cm<sup>2</sup>, W/cm<sup>2</sup> or W/m<sup>2</sup>) Integrated real-time clock (e.g. for documentation purposes and long-term measurements) Docking station with accumulator charging connection and RS232 interface for transmission and evaluation of measured values at the computer. Basic Version – As above except: Only one-channel measurement. No data storage. No docking station, i.e. No accumulator charging connection. No RS232 interface. No power pack. Accessories: Single sensors UVA (330 nm - 400 nm); maximum intensity 5 W/cm<sup>2</sup> UVB (290 nm - 330 nm); maximum intensity 2 W/cm<sup>2</sup> UVC (230 nm - 285 nm); maximum intensity 2 W/cm<sup>2</sup> VIS (420 nm - 520 nm); maximum intensity 5 W/cm<sup>2</sup> Light guide and quartz rod sensors UVA (330 nm - 400 nm); maximum intensity 20 W/cm<sup>2</sup> UVC (230 nm - 285 nm); maximum intensity 1 W/cm<sup>2</sup>.

