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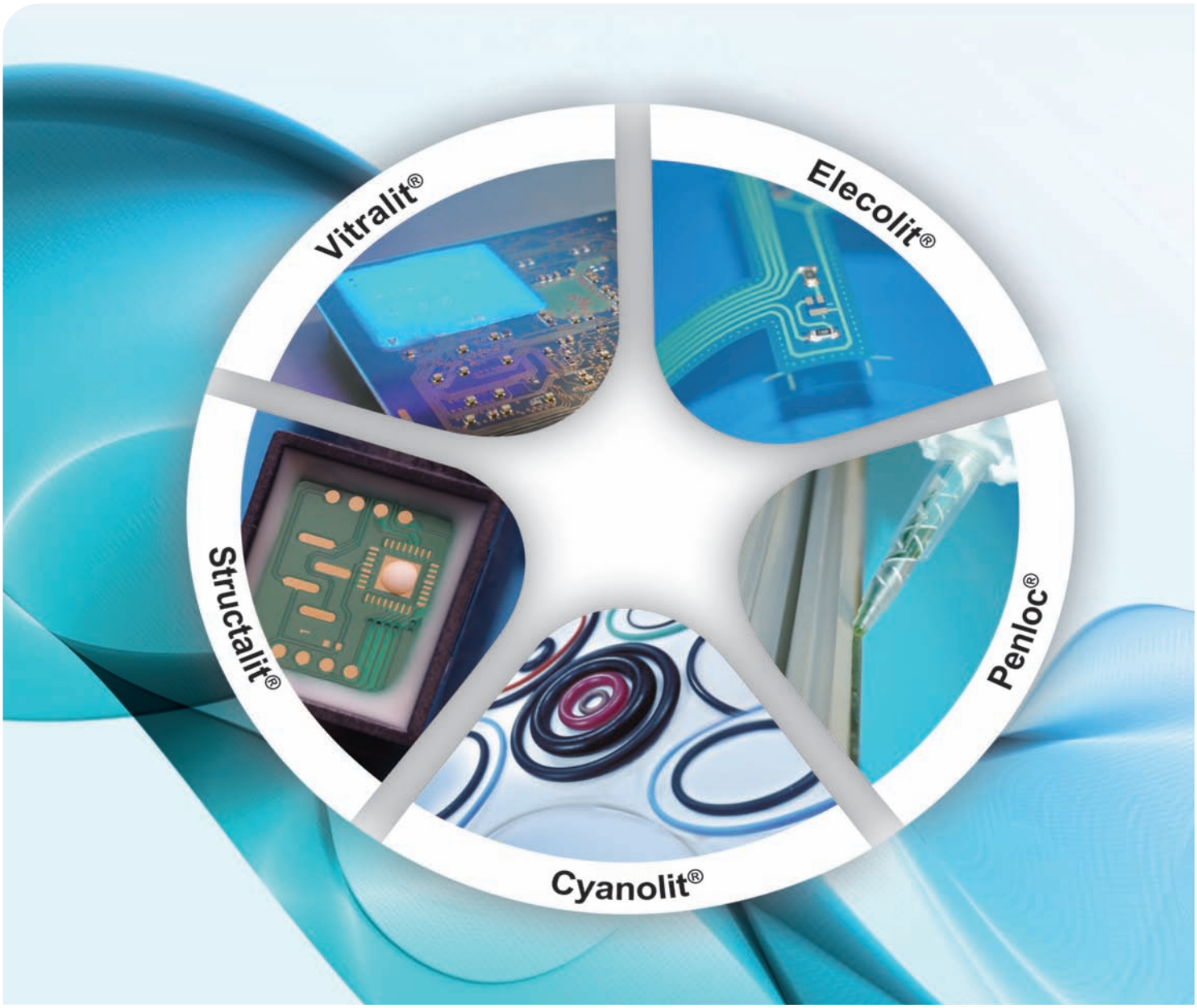
panacol-USA
adhesives & more



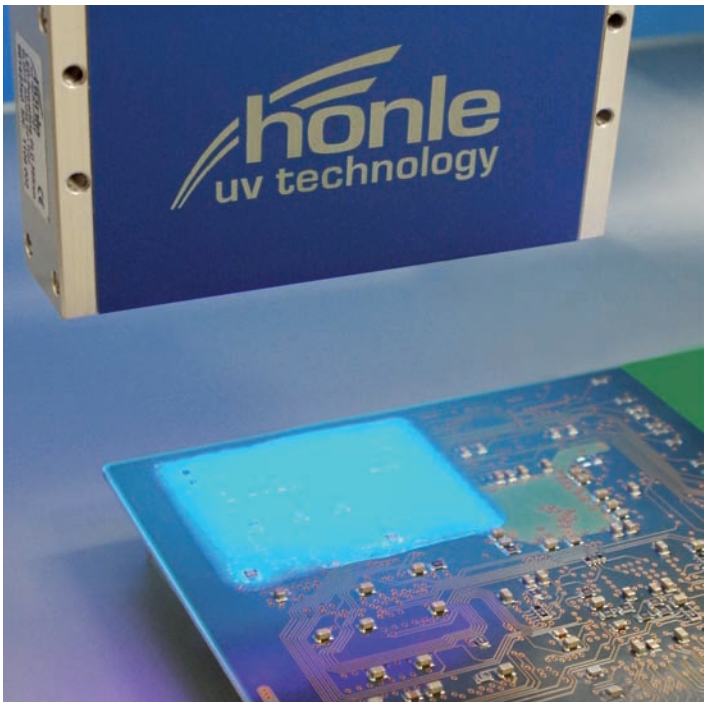
Product Information

Adhesive Brands

- Vitralit® – UV- and Light Curing Adhesives
- Elecolit® – Electrically and Thermally Conductive Adhesives
- Structalit® – Maximum Strength Structural Adhesives
- Penloc® – 2-part High Performance Structural Adhesives
- Cyanolit® – Instant Adhesives / Cyanoacrylates

Vitralit® – UV- and Light Curing Adhesives

Our comprehensive range of Vitralit® systems covers a multitude of applications and offers many advantages: Vitralit® systems are used in many fields in both trade and industry. Vitralit® adhesives and sealants are single-component systems that cure within a few seconds, only.



The Main Advantages of the Vitralit® Systems Are:

- Simple dosing, immersion, spray, roller application, etc; No mixing of several components and no pot life
- Depending on the application, curing times of 0.5 to 60 seconds can be achieved by exposure to high-energy UV light. Thus permitting shorter cycle times also in mass production
- Solvent-free, therefore environmentally safe
- Low energy costs due to short curing times
- Excellent electrical insulating properties
- Outstanding temperature and chemical resistance
- Low heating

The short UV exposure time allows bonding of temperature-sensitive materials. With their low space requirement, the Vitralit® systems are ideal even for complex fully-automated high-volume production lines and can be well integrated in existing plants.

Please feel free to contact us for support.
We help you chose the ideal Vitralit® product for your particular application, complete with all technical specification.

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Vitralit® 1505	Optical cement, Lens bonding cement, Glass bonding, Potting material	250–400	Epoxy	UV	Very high glass transition temperature, excellent chemical resistance, low attenuation
Vitralit® 1517	Lens bonding cement, Glass bonding	10,000–20,000	Epoxy	UV/thermal	Low shrinkage, very high Tg, low heat expansion
Vitralit® 1527	Lens bonding cement, Glass bonding	600–1,250	Epoxy	UV	Very high tg, low attenuation, high transmission, high chemical resistance, nanostructured fillers
Vitralit® 1528	Optical cement, Lens bonding cement, Glass bonding	350–850	Epoxy	UV/thermal	Allows post-curing in shadowed areas, low attenuation, very high tg
Vitralit® 1600 LV	Attaching components on PCBs, Conformal Coating, Encapsulation of electronic components, Potting Material, Automotive, Aerospace, Smart Card	3,000–5,000	Epoxy	UV/thermal	Very high Tg, low water absorption, low ion content, very high chemical resistance

*UV = 320 – 390 nm, VIS = 405 nm

Technical Datasheets: www.panacol.com/products/data-sheets

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Vitralit® 1605	Encapsulation of electronic components, Optical cement, Lens bonding cement, Glass bonding, Potting Material	200–400	Epoxy	UV/thermal	Low shrinkage, low heat expansion, very high tg, excellent chemical resistance, certified to ISO 10993–5 standards
Vitralit® 1650	Glob top encapsulation, Conformal Coating, Encapsulation of electronic components, Potting Material, Automotive, Aerospace, Smart Card	6,000–9,000	Epoxy	UV	Electronic grade, low ion content, suitable for chip protection
Vitralit® 1655	Conformal Coating, Encapsulation of electronic component,s Glass bonding, Potting Material, Medical Grade Adhesive	150–300	Epoxy	UV/thermal	Flexible, certified to USP Class VI and ISO 10993–5 standards, resistant to all common sterilization methods
Vitralit® 1657	Glob top encapsulation, Conformal Coating, Encapsulation of electronic components, Potting Material, Attaching components on PCBs, Display bonding	5,000–15,000	Epoxy	UV	Low ion content, excellent chemical resistance, low water absorption, suitable for covering open bonded chips
Vitralit® 1671	Glob top encapsulation, Conformal Coating, Encapsulation of electronic components, Potting Material, Attaching components on PCBs, SMD assembly, Display bonding, Smart Card	9,000–14,000	Epoxy	UV/thermal	Stable dam compound, high ion purity, electronic grade adhesive, high temperature conductivity, low water absorption
Vitralit® 1680	Glob top encapsulation, Conformal Coating, Encapsulation of electronic components, Potting Material, Smart Card	6,000–9,000	Epoxy	UV	Very high resistance to heat and humidity, electronic grade adhesive, low ion content, suitable for chip protection
Vitralit® 1688	Glob top encapsulation, Conformal Coating, Encapsulation of electronic components, Potting Material, Smart Card	3,000–4,000	Epoxy	UV	Excellent flow properties and levelling, electronic grade adhesive, low ion content, suitable for chip protection, excellent resistance to heat and humidity
Vitralit® 1691	Glob top encapsulation	280,000–310,000	Epoxy	UV/thermal	Black color, high ion purity, electronic grade adhesive, high temperature resistance, fast surface curing with UV light
Vitralit® 1702	Plastic bonding, Medical Grade Adhesive	10–100	Acrylate	UV/VIS	Transparent, capillary flow, certified to USP Class VI standards
Vitralit® 1703	Medical Grade Adhesive	85,000–130,000	Acrylate	UV	Stable, certified to USP Class VI standards

*UV = 320 – 390 nm, VIS = 405 nm

Technical Datasheets: www.panacol.com/products/data-sheets

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Vitralit® 1720	Attaching components on PCBs, Encapsulation of electronic components, SMD assembly, Lens bonding cement, Glass bonding, Plastic bonding, Potting Material, Automotive, Aerospace	2,700–3,700	Epoxy	UV	Low shrinkage, high temperature resistance
Vitralit® 1722	Attaching components on PCBs, Encapsulation of electronic components, SMD assembly, Lens bonding cement, Glass bonding, Plastic bonding, Potting Material, Automotive, Aerospace	5,000–8,000	Epoxy	UV	Very high adhesion to most thermoplastics, low shrinkage, high temperature resistance
Vitralit® 2004 F	Conformal Coating, Encapsulation of electronic components, Potting Material, Automotive, Aerospace	60–100	Epoxy	UV/thermal	Fluorescing, flexible, autoclavable, dry surface after curing, low ion content, sprayable
Vitralit® 2007 F	Conformal Coating, Encapsulation of electronic components, Potting Material, Automotive, Aerospace	200–500	Epoxy	UV/thermal	Fluorescing, flexible, autoclavable, excellent chemical resistance, low ion content
Vitralit® 2009 F	Conformal Coating, Encapsulation of electronic components, Potting Material, Automotive, Aerospace	100–200	Epoxy	UV/thermal	Fluorescing, flexible, autoclavable, high chemical resistance, low ion content
Vitralit® 2020	Glass bonding, Dome Coating, Potting Material	200–400	Epoxy	UV	Dry surface after UV-curing, scratch-resistant, transparent
Vitralit® 2025	Glass bonding, Dome Coating, Potting Material	200–400	Epoxy	UV	Dry surface after UV-curing, scratch-resistant, transparent, very high chemical and thermal resistance
Vitralit® 2028	Conformal Coating, Encapsulation of electronic components, Potting Material, Glass bonding, Automotive, Aerospace	160–300	Epoxy	UV/thermal	Dry surface after UV-curing, autoclavable, excellent chemical resistance, scratch resistant coating
Vitralit® 2655	Flip Chip Underfill	150–300	Epoxy	UV/thermal	Flexible, capillary flow, high ion purity
Vitralit® 2667	Flip Chip Underfill	3,000–5,000	Epoxy	UV/thermal	Low thermal expansion, low ion content
Vitralit® 3385	Optical cement	1,000–2,000	Acrylate	UV/VIS	Low shrinkage, transparent, non-yellowing
Vitralit® 4282	SMD assembly, Potting Material, Automotive, Aerospace	500–600	Acrylate	UV/anaerobic	UV curing thread locking, fast anaerobic post-curing

*UV = 320 – 390 nm, VIS = 405 nm

Technical Datasheets: www.panacol.com/products/data-sheets

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Vitralit® 4282 mod2	SMD assembly, Potting Material, Automotive, Aerospace	500–600	Acrylate	UV/anaerobic	UV curing thread locking, fast anaerobic post-curing, light green color
Vitralit® 4285	SMD assembly, Potting Material, Automotive, Aerospace	3,000–5,000	Acrylate	UV/anaerobic	UV curing thread locking, fast anaerobic post-curing
Vitralit® 4451	Conformal Coating, Plastic bonding, Plastic film lamination, Dome Coating	500–800	Acrylate	UV	Low shrinkage, soft and elastic, dry surface after curing, protective coating
Vitralit® 4641	Display bonding, Potting Material	1,000–2,500	Acrylate	UV/VIS	Fast curing, elastic, flexible, high resilience
Vitralit® 4730	Glass bonding, Display bonding, Plastic bonding, Plastic film lamination	70–150	Acrylate	UV/VIS	Capillary flow, flexible and tear-proof adhesive, suitable for potting, dry surface
Vitralit® 4731	Attaching components on PCBs, Glass bonding, Display potting compound, Plastic bonding, Plastic film lamination, Medical Grade Adhesive	900–1,500	Acrylate	UV/VIS	Dry surface after curing, certified to USP Class VI and ISO 10993–5 standards
Vitralit® 4731 VT	Glass bonding, Display potting compound, Plastic bonding, Plastic film lamination, Lens bonding cement, Potting Material	22,000–28,000	Acrylate	UV/VIS	Dry surface after curing, flexible and tear-proof, excellent adhesion to many plastics
Vitralit® 4732 VT	Glass bonding, Display potting compound, Plastic bonding, Plastic film lamination, Display bonding, Lens bonding cement, Potting Material	33,000–40,000	Acrylate	UV/VIS	Very high adhesion to many plastics, dry surface after curing, flexible and tear-proof
Vitralit® 4735 HC	Attaching components on PCBs, Glass bonding, Display potting compound, Plastic bonding, Plastic film lamination, Medical Grade Adhesive	700–1,000	Acrylate	UV/VIS/ thermal	Very high adhesion to many plastics, dry surface after curing, flexible and tear-proof, thermal post-curing, suitable for potting
Vitralit® 50004	Display Bonding	50–200	Acrylate	UV/VIS	Low shrinkage, fast curing, optically clear
Vitralit® 5140	Encapsulation of electronic components, Plastic bonding, Plastic film lamination, hard to bond plastic substrates, Medical Grade Adhesive, Potting Material	250–500	Acrylate	UV/VIS	Flexible, well suited for bonding plastics with low UV translucence and permeable to visible light, certified to USP Class VI standards
Vitralit® 5140 VT	Encapsulation of electronic omponents, Plastic bonding, Plastic film lamination, hard to bond plastic substrates, Medical Grade Adhesive, Potting Material	shear thinning	Acrylate	UV/VIS	High resistance to thermal stress and moisture, flexible and stable

*UV = 320 – 390 nm, VIS = 405 nm

Technical Datasheets: www.panacol.com/products/data-sheets

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Vitralit® 6008 VLV	Glass bonding	40–90	Acrylate	UV/VIS	Capillary flow, transparent
Vitralit® 6103	Encapsulation of electronic components, SMD assembly, Potting Material, Automotive, Aerospace	3,500–5,000	Acrylate	UV/thermal	Very high adhesion to metals and sintered materials, transparent
Vitralit® 6104	Encapsulation of electronic components, SMD assembly, Automotive, Aerospace	3,500–6,000	Acrylate	UV/thermal	Very high adhesion to metals and sintered materials
Vitralit® 6104 VT	Encapsulation of electronic components, SMD assembly, Attaching components on PCBs, Automotive, Aerospace	80,000–90,000	Acrylate	UV/thermal	Very high adhesion to metals and sintered materials, ideal for bonding large components on circuit boards (corner bonding)
Vitralit® 6105	Encapsulation of electronic components, SMD assembly, Automotive, Aerospace	3,500–6,000	Acrylate	UV/thermal	Very high adhesion to metals and sintered materials
Vitralit® 6108	Glass bonding, Medical Grade Adhesive, Potting Material	600–900	Acrylate	UV/VIS/ thermal	Non-yellowing, excellent flow properties, certified to USP Class VI and ISO 10933–5 standards
Vitralit® 6108 T	Glass bonding, Medical Grade Adhesive, Potting Material	4,000–6,000	Acrylate	UV/VIS/ thermal	Non-yellowing, excellent gap-filling, certified to USP Class VI standards
Vitralit® 6125	Attaching components on PCBs, Potting Material, Encapsulation of electronic components, SMD assembly, Lens bonding cement, Glass bonding, Automotive, Aerospace	4,000–6,000	Acrylate	UV/thermal	Contains chemical activator, excellent adhesion to stone, glass, metals and thermoplastics, high temperature resistance, medium viscosity
Vitralit® 6127	Glass bonding	20–100	Acrylate	UV/thermal	High purity, specially formulated for bonding glass
Vitralit® 6128	Attaching components on PCBs, Encapsulation of electronic components, SMD assembly, Lens bonding cement, Glass bonding, Potting Material	800–1,200	Acrylate	UV/thermal	Contains chemical activator, very high adhesion to stone, glass, metals and thermoplastics, high temperature resistance
Vitralit® 6128 VT	Attaching components on PCBs Encapsulation of electronic components, SMD assembly, Lens bonding cement, Glass bonding, Potting Material	18,000–30,000	Acrylate	UV/thermal	Contains chemical activator, high temperature resistance, high viscosity, excellent adhesion to stone, glass, metals and thermoplastics

*UV = 320 – 390 nm, VIS = 405 nm

Technical Datasheets: www.panacol.com/products/data-sheets

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Vitralit® 6129	PCB Assembly, SMD assembly	4,000–7,000	Acrylate	UV/thermal	White color, very high resistance to heat and chemicals, very good thermal conductivity
Vitralit® 6133	Lens bonding cement, Glass bonding	600–1,000	Acrylate	UV/VIS	High strength and impact resistance, very high adhesion to glass, metals, and anodized aluminium, transparent
Vitralit® 6134	Lens bonding cement, Glass bonding	700–1,000	Acrylate	UV/VIS	Very high adhesion to stainless steel, stone, granite, high purity, suitable for bonding optical components, transparent
Vitralit® 6300	Glass bonding/ Plastic bonding	2,500–4,000	Acrylate	UV/VIS/ thermal	Jettable, non-yellowing, dual cure
Vitralit® 7041	Medical Grade Adhesive	50–90	Acrylate	UV/VIS	Excellent adhesion to glass, plastics and metals, certified to USP Class VI standards
Vitralit® 7041 F	Medical Grade Adhesive	50–90	Acrylate	UV/VIS	Fluorescing, excellent adhesion to glass, plastics and metals, certified to USP Class VI standards
Vitralit® 7041 T	Medical Grade Adhesive	1,500–2,300	Acrylate	UV/VIS	Excellent adhesion to glass, plastics and metals, certified to USP Class VI standards, high viscosity, stable
Vitralit® 7044 VLV	Medical Grade Adhesive, Bonding rubber	10–100	Acrylate	UV/VIS	High peel strength, perfect solution for bonding large surfaces, flexible
Vitralit® 7090 VHS	Medical Grade Adhesive, Plastic bonding,	40–100	Acrylate	UV/VIS	Certified to USP Class VI standards, dry surface, very high adhesion to plastics
Vitralit® 7222	Medical Grade Adhesive	200–500	Epoxy	UV	Certified to USP Class VI standards, scratch resistant, transparent
Vitralit® 7256	Glass bonding	700–1,000	Acrylate	UV/VIS	Non-yellowing, transparent
Vitralit® 7283	Plastic bonding	70–130	Acrylate	UV/VIS	Perfect solution for bonding large surfaces, very high adhesion to glass, metals and plastics
Vitralit® 7311	Plastic bonding	40–70	Acrylate	UV/VIS	High resistance to alcohols and moisture, non-yellowing, very high adhesion to plastics, glass and metals
Vitralit® 7313	Plastic bonding	40–70	Acrylate	UV/VIS	Flexible, high elongation at break, perfect solution for bonding large surfaces, very high adhesion to plastics, glass and metals
Vitralit® 7561	Glass bonding	500–850	Acrylate	UV	Elastic, low water absorption, perfect solution for bonding large surfaces, high resistance to moisture
Vitralit® 7562	Glass bonding, Medical Grade Adhesive	500–800	Acrylate	UV/VIS	Optically clear, flexible, elastic, high resistance to moisture
Vitralit® 7631	Plastic bonding, hard to bond plastic substrates, Glass bonding, Potting Material	100–300	Acrylate	UV/VIS	Very high shear strength and bond strength, excellent adhesion to plastics, capillary flow behavior
Vitralit® 7641	Plastic bonding, hard to bond plastic substrates, Glass bonding, Potting Material	10–100	Acrylate	UV/VIS	Specially formulated for bonding PMMA, high adhesion, capillary flow

*UV = 320 – 390 nm, VIS = 405 nm

Technical Datasheets: www.panacol.com/products/data-sheets

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Vitralit® 7642	Plastic bonding, hard to bond plastic substrates, Glass bonding, Potting Material	1,500–2,000	Acrylate	UV/VIS	Excellent adhesion to many plastics, high bond strength, excellent flow properties
Vitralit® 7989	Medical Grade Adhesive, Plastic bonding, hard to bond plastic substrates	3,000–5,000	Acrylate	UV	Excellent adhesion to plastics, especially to PC and PMMA, certified to USP Class VI standards
Vitralit® 9140 VL	Glass bonding, Plastic bonding, Potting Material	1,000–2,000	Acrylate	UV/VIS	Flexible, high resistance to moisture, cures thick layers of adhesive
Vitralit® 9179	Encapsulation of electronic components, Encapsulation of plastic parts, Potting Material, Attaching components on PCBs	200–400	Acrylate	UV	Fast curing, very well suited for automated production lines, yellow color, dry surface
Vitralit® 9180	Encapsulation of electronic components, Encapsulation of plastic parts, Potting Material, Attaching components on PCBs	700–1.200	Acrylate	UV	Dry surface, fast curing of thick layers, yellow color
Vitralit® 9181	Encapsulation of electronic components, Encapsulation of plastic parts, Potting Material, Attaching components on PCBs	4,000–7,000	Acrylate	UV	Yellow color, dry surface, fast curing of thick layers
Vitralit® FIPG 60102	Potting Material, Display bonding	shear-thinning	Acrylate	UV/VIS	Flexible, elastic, liquid gasket, high relience, easy to apply, fast curing with UV light
Vitralit® UC 1618	Optical cement, Lens bonding cement	500–1,000	Epoxy	UV/thermal	High glass transition temperature, high chemical resistance, transparent, low thermal expansion
Vitralit® UC 1619	Optical cement, Lens bonding cement	3,000–5,000	Epoxy	UV/thermal	Low ion content, non-yellowing, low thermal expansion
Vitralit® UC 6025	Plastic bonding	1,480–3,000	Epoxy	UV/VIS	Flexible, easy to dispense, very high adhesion to plastic
Vitralit® UC 6215	Dome Coating, Potting Material	400–1,100	Epoxy	UV	Low outgassing, high temperature resistance, slightly flexible, high ion purity, suitable for potting
Vitralit® UC 6684	Dome Coating	1,500–2,500	Epoxy	UV	Transparent, brilliant and dry surface, scratch resistant
Vitralit® UC 6686	Dome Coating	55,000–80,000	Epoxy	UV	Transparent, non-yellowing
Vitralit® UD 2018	Attaching components on PCBs	shear thinning	Epoxy	UV/thermal	Resistant to temperature cycles, low shrinkage, low thermal expansion coefficient, pink color, pink fluorescent
Vitralit® UD 5134	Attaching components on PCBs, Lens bonding cement, Plastic bonding, hard to bond plastic substrates, Potting Material, Automotive, Aerospace	15,000–25,000	Hybrid	UV/VIS/ thermal	Acrylate-Hybrid, low thermal expansion, low shrinkage, impact resistant, dry surface, optional thermal post-curing of shadowed areas, grey color
Vitralit® UD 5180	Glob top encapsulation, Attaching components on PCBs, Conformal Coating, Encapsulation of electronic components, Plastic bonding, Potting Material, Automotive, Aerospace	20,000 – 30,000	Epoxy	UV/thermal	Yellowish colour, perfect solution for bonding flexible circuit paths, optional thermal post-curing, resistant to reflow processes, grey color

*UV = 320 – 390 nm, VIS = 405 nm

Technical Datasheets: www.panacol.com/products/data-sheets

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Vitralit® UD 8050	Conformal Coatings	shear thinning	Acrylate	UV/VIS/ moisture	Isocyanacrylate, fast moisture post-curing in shadowed areas, easy to dispense with jet or dispenser e.a., resistant to moisture, fixing and protecting electronic components
Vitralit® UV 2113	Attaching components on PCBs, Lens bonding cement, Plastic bonding, hard to bond plastic substrates, Potting Material	19,000–32,000	Hybrid	UV/VIS	Acrylate hybrid, superior strength, low thermal expansion, impact resistant, low shrinkage, resistant to soldering stress, excellent flow properties
Vitralit® UV 2114	Coating	10,000–15,000	Acrylate	UV/VIS	Bonding and sealing of plastics, glass and metals
Vitralit® UV 2115	Lens bonding cement, Attaching components on PCBs, Plastic bonding, Potting Material, Automotive, Aerospace	20,000–30,000	Hybrid	UV/VIS	Acrylate hybrid, superior strength, low thermal expansion, low shrinkage, impact resistant, resistant to soldering stress, paste-like, stable and high viscous
Vitralit® UV 2150	Plastic bonding, Plastic film lamination, Potting Material	140–500	Acrylate	UV/VIS	Modified acrylate, impact resistant, fast curing, very high adhesion to plastics
Vitralit® UV 2415	Glass bonding, Lens bonding cement, Potting Material	1,500–2,500	Acrylate	UV/VIS	High bond strength, impact resistant, dry surface, resistant to high temperatures and chemicals
Vitralit® UV 2725	Glass bonding	200–400	Acrylate	UV/VIS	High peel strength, flexible, optically clear, for bonding large surfaces
Vitralit® UV 4050	Medical Grade Adhesive	140–500	Acrylate	UV/VIS	Certified to ISO 10993–5 standards, modified acrylate, impact resistant, very fast curing, very high adhesion to plastics
Vitralit® VBB 1	Encapsulation of electronic components, Glass bonding, Display encapsulation, Plastic film lamination, Plastic bonding, Potting Material	1,000–1,500	Acrylate	UV/VIS	Elastic, high peel strength, optically clear, very flexible, suitable for potting
Vitralit® VBB 1 Gel	Attaching components on PCBs, Glass bonding, Display bonding, Display encapsulation and display sealing, Plastic bonding, Potting Material	150,000–190,000	Acrylate	UV/VIS	Elastic, high peel strength, optically clear, very flexible, stable gel
Vitralit® VBB-2N LV	Bonding rubber, Display encapsulation, Plastic film lamination, Glass bonding	10–100	Acrylate	UV/VIS	Flexible, perfect solution for bonding large surfaces, high peel strength
Vitralit® VBB-N	Display encapsulation, Plastic film lamination, Glass bonding	50–150	Acrylate	UV/VIS	Transparent, elastic, high peel strength
Vitralit® VBB-N2 SV	Display encapsulation, Plastic film lamination, Glass bonding	300–500	Acrylate	UV/VIS	Very elastic, high peel strength, perfect solution for large surfaces

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Technical Datasheets: www.panacol.com/products/data-sheets

Elecolit® Conductive Adhesives

Elecolit® is our brand of electrically and thermally conductive adhesives.

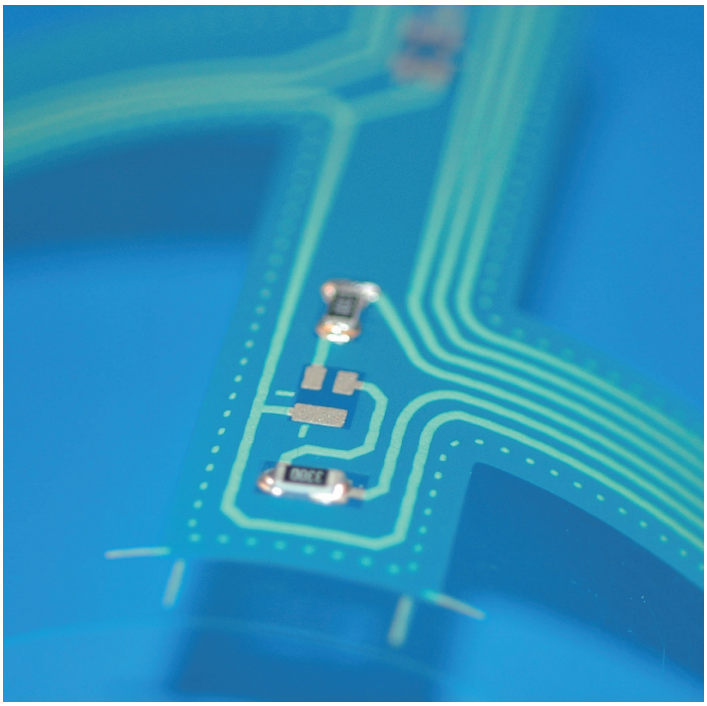
The products of the Elecolit®-series are an innovative solution for many applications.

Elecolit® conductive adhesives are synthetic resins filled with metallic or inorganic filler materials.

The Portfolio Comprises:
- ICA isotropically conductive adhesives
- TCA thermally conductive adhesives
- ACA anisotropically conductive adhesives

1-Part Products
Benefits: simple processing with dispenser, screen printing or needle transfer – no mixing required.

2-Part Products
Benefits: long shelf life, curing at room temperature possible, very short curing times possible at higher temperatures, low-viscosity settings possible.



Electrically Conductive

Our electrically conductive products contain metallic fillers such as silver or graphite. The more filler material the product contains, the higher is its conductivity.

Advantages As Compared to Other Techniques:
- Lead- and solvent-free
- Curing at low temperatures < 120 °C
- Easily incorporated into existing assembly processes
- High flexibility at temperature shock
- High thermal stability
- No bleeding

Thermally Conductive

The highest thermal conductivity can be achieved with metallic fillers, which are not only thermally but also electrically conductive. If only thermal conductivity is needed, non-metallic filled products should be utilized.

Adhesive	Application	Viscosity [mPas]	Base	Curing*	Properties
Elecolit® 3012	Bonding electroconductive parts	paste-like	Epoxy	thermal	electrically conductive (ICA), thermally conductive, suitable for screen printing
Elecolit® 3025	Bonding heat-sensitve components	80,000–90,000	2-part epoxy	thermal/room temperature	electrically conductive (ICA), thermally conductive
Elecolit® 3036	Bonding heat-sensitve components	paste-like	2-part epoxy	thermal/room temperature	electrically conductive (ICA), thermally conductive
Elecolit® 3043	Antenna print, Bonding ceramic fuses	4,000–5,000	Epoxy	thermal	electrically conductive (ICA), thermally conductive
Elecolit® 3063	LCD bonding, Bonding flexible conductors	150,000–190,000	Acrylate	UV + Pressure VIS + Pressure	electrically conductive (ACA),
Elecolit® 3064	LCD bonding, Bonding flexible conductors	gel-like	Acrylate	UV + Pressure VIS + Pressure	electrically conductive (ACA),
Elecolit® 3065	Bonding flexible circuits	paste-like	Acrylate	UV + Pressure VIS + Pressure thermal	electrically conductive (ACA), transparent brownish color

*UV = 320 – 390 nm, VIS = 405 nm

Technical Datasheets: www.panacol.com/products/data-sheets

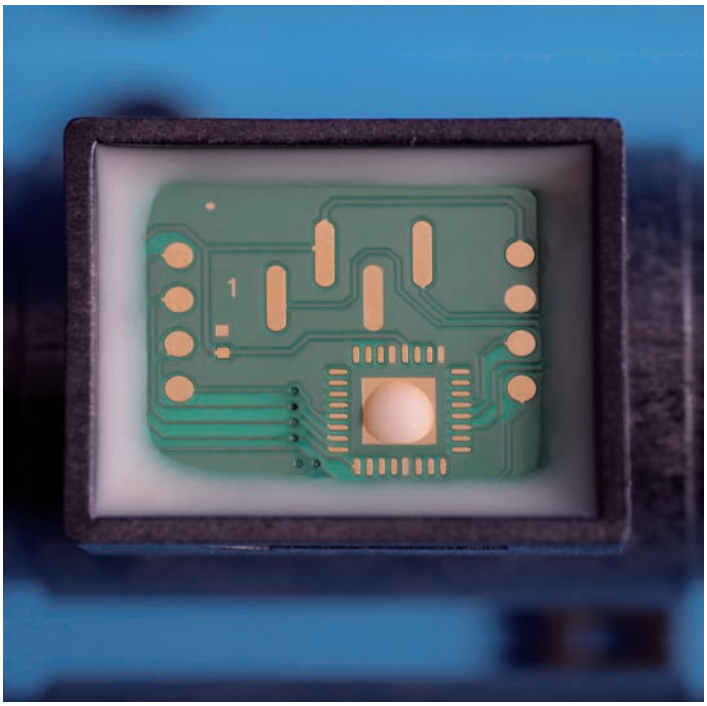
Adhesive	Application	Viscosity [mPas]	Base	Curing	Properties
Elecolit® 323	Bonding electronic components, Medical Grade Adhesive	paste-like	2-part epoxy	thermal	electrically conductive (ICA), thermally conductive, ISO 10993–5/–12 certified
Elecolit® 325	Bonding heat-sensitve components	paste-like	2-part epoxy	thermal	electrically conductive (ICA), thermally conductive
Elecolit® 327	Resistant to high temperatures	paste-like	Polyimid	thermal	electrically conductive (ICA), thermally conductive, temperature resistant up to 275°C
Elecolit® 336	Bonding heat-sensitve components	paste-like	2-part epoxy	thermal/room temperature	electrically conductive (ICA), thermally conductive
Elecolit® 342	ESD protection	1,000–2,000	Acrylate	thermal	electrically conductive (ICA), thermally conductive
Elecolit® 3653	Bonding electroconductive parts, ideal for parts subjected to high vibrations	8,000–13,000	Epoxy	thermal	electrically conductive (ICA,) thermally conductive
Elecolit® 3655	LED Die attach	5,000–15,000	Epoxy	thermal	electrically conductive (ICA), thermally conductive, thixotropic, silver color
Elecolit® 3661	Bonding flexible interconnect devices	20,000–40,000	Epoxy	thermal	electrically conductive (ICA), thermally conductive, stable, flexible
Elecolit® 414	Printing circuit paths on flexible subtrates	20,000–25,000	Polyester	thermal	electrically conductive (ICA), thermally conductive
Elecolit® 6207	Encapsulation general potting	9,000–12,000	2-part epoxy	thermal/room temperature	thermally conductive, black color, UI listing
Elecolit® 6601	Heat sink bonding, Sensor bonding	12,000–20,000	Epoxy	thermal	thermally conductive, white color
Elecolit® 6603	Magnet bonding, Heat sink bonding	95,000–115,000	Epoxy	thermal	thermally conductive
Elecolit® 6604	Sensor bonding	110,000–140,000	Epoxy	thermal	thermally conductive
Elecolit® 6616	Heat sink bonding	paste-like	2-part epoxy	thermal/room temperature	thermally conductive, black color

Structalit® Maximum Strength Structural Adhesives

The Structalit® products are one and two-component multi-purpose adhesives that provide maximum strength.

Structalit® can also be used in special and high-tech applications, for example in PCB production, where it is used as a black, thermally curing 1-part sealing compound.

They are ideal for bonding a wide range of different materials.



Typical Applications

Single-Component: Bonding Metal Constructions:

- For sheet metalwork, electronic or high-tech applications

Two-Component: For Large bonded Parts that have to cure at Room Temperature:

- Sealant
- Heat-resistant plastic bonds

Adhesive	Application	Viscosity [mPas]	Base	Curing	Properties
Structalit® 1028 R	General applications	16,000–24,000	2-part epoxy	Room temper.	Versatile applications, easily dispensable with double cartridge
Structalit® 3060 N	Die attach, Structural bonding	42,000–46,500	Epoxy	thermal	Very low ion content, non-conductive
Structalit® 5511	Wire protection, Potting and sealing	800–1,200	Epoxy	thermal at 60°C	Outstanding adhesion to high performance plastics (LCP, PBT)
Structalit® 5521	Wire protection, Potting and sealing	1,000–1,600	Epoxy	thermal at 60°C	Outstanding adhesion to high performance plastics (LCP, PBT)
Structalit® 5531	Wire protection, Potting and sealing	5,000–10,000	Epoxy	thermal at 60°C	Outstanding adhesion to high performance plastics (LCP, PBT)
Structalit® 5604	Attaching components on PCBs, Die attach, Smart Card, Plastic bonding	25,000–40,000	Epoxy	thermal	Fast curing, red color, fixing components on PCBs, SMD applications
Structalit® 5610	Attaching components on PCBs	shear thinning	Epoxy	thermal	Cures fast at low temperatures, high temperature resistance, red color, fixing components on PCBs, SMD applications
Structalit® 5704	Frame&Fill, Glob Top	60,000–100,000	Epoxy	thermal	Black color, stable frame, no bleeding
Structalit® 5717	Fills for Frame&Fill, Glob Top	3,000–8,000	Epoxy	thermal	Very good flowability, high glass transition temperature, suitable for semiconductors, very low ion content
Structalit® 5719		5,000–10,000			
Structalit® 5720		25,000–40,000			
Structalit® 5721		15,000–20,000			
Structalit® 5800	Encapsulation of electronic components, Plastic bonding, Automotive, Aerospace	7,000–15,000	2-part epoxy	thermal/room temperature	High temperature resistance, short pot life, fast application

Adhesive	Application	Viscosity [mPas]	Base	Curing	Properties
Structalit® 5810	Encapsulation of electronic components, Potting Material, Plastic and Glass bonding Automotive, Aerospace	2,000–3,000	2-part epoxy	thermal/room temperature	Very high adhesion to PC, resistant to moisture and chemicals
Structalit® 5820	Potting Material	20,000–25,000	Epoxy	thermal	transparent, high adhesion to metals
Structalit® 5830	Attaching components on PCBs, Potting Material, Automotive, Aerospace	28,000–38,000	Epoxy	thermal	Yellow color, adheres well to metal, impact resistant, high peel strength
Structalit® 5891	Glob top encapsulation, Attaching components on PCBs	300,000–400,000	Epoxy	thermal	Black color, fast curing at low temperatures, impact resistant
Structalit® 5891 T	Glob top encapsulation, Attaching components on PCBs	80,000–150,000	Epoxy	thermal	Black color, stable frame mat., can be applied wet-in-wet with filling material (e.g. Structalit® 5893), stable edges, resisant to shocks
Structalit® 5892	Glob top encapsulation, SMD Assembly	200,000–300,000	Epoxy	thermal	Black color, fast curing at low temperatures, high shock-resistance
Structalit® 5893	Glob top encapsulation, Attaching components on PCBs, Medical Grade Adhesive, Needle Bonding	6,000–10,000	Epoxy	thermal	Black color, excellent flow properties, filling material, high resistance to heat and chemicals, certified to ISO 10993–5 standards
Structalit® 5894	Glob top encapsulation, Encapsulation of electronic components, Attaching components on PCBs, Automotive	45,000–55,000	Epoxy	thermal	Black color, excellent flow properties, filling material, very high resistance to heat and chemicals
Structalit® 701	Lens bonding cement, Optical cement, Medical Grade Adhesive	3,000–5,000	2-part epoxy	thermal	Transparent in thin layers, long potlife, fast curing, certified to USP Class VI and ISO 10993–5 standards
Structalit® 8801	Attaching components on PCBs, Encapsulation of electronic components and plastic parts, Potting Material Automotive, Aerospace, Medical Grade Adhesive	30,000 – 45,000	Epoxy	thermal	Resistant to oils, grease and fuels, excellent flow properties, beige color, certified to ISO 10993–5 standards
Structalit® 8801 black	Attaching components on PCBs, Encapsulation of electronic components and plastic parts, Automotive, Aerospace	30,000 – 45,000	Epoxy	thermal	Resistant to oils, grease and fuels, black color, excellent flow properties
Structalit® 8801 T	Attaching components on PCBs, Encapsulation of electronic components and plastic parts, Automotive, Aerospace	thixotropic	Epoxy	thermal	Resistant to oils, grease and fuels, stable
Structalit® 8838	Attaching components on PCBs, Encapsulation of electronic components	6,500–7,500	Epoxy	thermal	Black color, flexible potting compound, excellent flow properties
Structalit® 8926	Attaching components on PCBs, Encapsulation of electronic components and plastic parts, Potting Material, Automotive, Aerospace	30,000 – 45,000	Epoxy	thermal	Resistant to oils, grease and fuels, excellent flow properties, beige color

Cyanolit® Instant Adhesives

The Cyanolit® superglue series from Panacol includes a wide range of high performance cyanoacrylate adhesives. Cyanolit® offers reliable bonding solutions for challenging applications. Fast and consistent bonding processes can be created with Cyanolit® adhesives.

The solution for instant bonds

Cyanolit® cyanoacrylates are highly effective adhesives, which cure without heat, pressure, or other activators.

Typically, the classic one-component cyanoacrylate adhesives cure within seconds when exposed to atmospheric humidity or the moisture adsorbed on the surfaces of the materials being bonded.

Key Benefits

- Some products allow assembly without outgassing/ blooming
- Application specific bonding of porous materials and rubber
- Application specific bonding of PP and other critical plastics
- Large range of viscosities available

Adhesive	Application	Viscosity [mPas]	Base	Curing	Properties
Cyanolit® 200	Plastic bonding, Hard to bond plastic substrates	1–3	Cyano-acrylate	Moisture at Room temperature	Capillary flow
Cyanolit® 201	Plastic bonding, Hard to bond plastic substrates	1–3	Cyano-acrylate	Moisture at Room temperature	Capillary flow
Cyanolit® 202	Plastic bonding, Hard to bond plastic substrates	70–100	Cyano-acrylate	Moisture at Room temperature	Capillary flow
Cyanolit® 203 TX	Plastic Bonding, Medical Grade Adhesive	shear thinning	Cyano-acrylate	Moisture at Room temperature	Certified to USP Class VI standards
Cyanolit® 241 F	Plastic Bonding, Medical Grade Adhesive	30–50	Cyano-acrylate	Moisture at Room temperature	Capillary flow, certified to USP Class VI standards
Cyanolit® 401 X	Metal bonding	1–3	Cyano-acrylate	Moisture at Room temperature	Capillary flow
Cyanolit® 732 F	Plastic Bonding, Medical Grade Adhesive, Smart Card	230–350	Cyano-acrylate	Moisture at Room temperature	Film forming, certified to USP Class VI standards
Cyanolit® 811 F	Plastic Bonding	4–12	Cyano-acrylate	Moisture at Room temperature	No gas emission
Cyanolit® Gel 10	Plastic Bonding	100,000–240,000	Cyano-acrylate	Moisture at Room temperature	Shear thinning, gel-like

Technical Datasheets: www.panacol.com/products/data-sheets

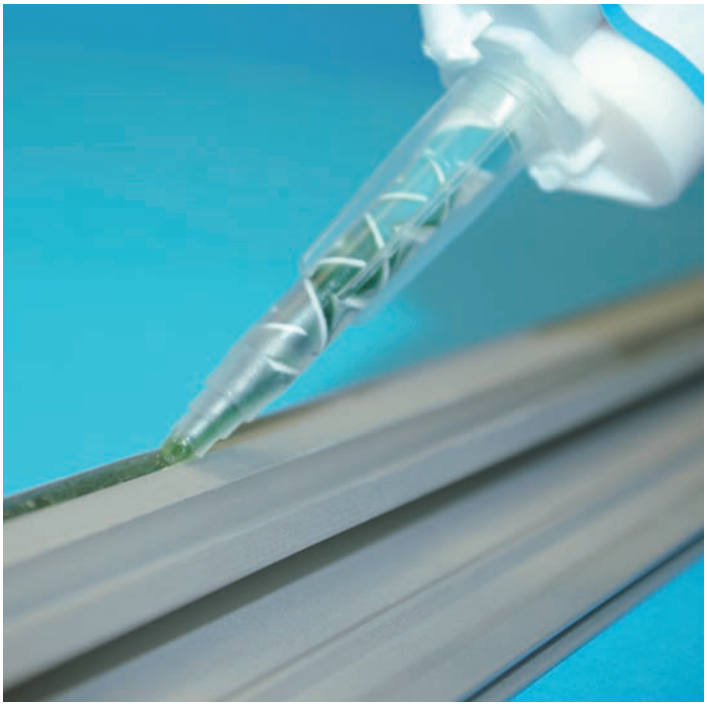
The Penloc® GT Series: Two-Component Performance Structural Adhesives for Superior Strength

For Bonding Numerous Material Combinations

The acrylic-based high-performance structural adhesives of the Penloc® GT series are ideal for bonding materials such as metal, glass, ceramics, wood and many plastics (except PE and PP).

The Penloc® GT adhesives are easy to handle and versatile in use.

The series comprises the two-component Penloc® products GTI, GTH-T, GTR, GTI-S and GTR-VT.



Adhesive Properties

- Suitable for bonding a wide range of materials
- Fast, flexible, versatile
- Wide range of applications – from low volume to mass production
- Bonds quickly and reliably
- Universal use and simple handling
- High strength and stability
- Cures at room temperature
- Short curing times

Adhesive	Application	Viscosity [mPas]	Base	Curing	Properties
Penloc® GTH-T	Plastic bonding, Potting Material, Automotive, Aerospace, Metal bonding, Joining hinges	8,000–10,000	2-part-Methyl-Methacrylate	Room temperature	Very high adhesion to metal, temperature resistant
Penloc® GTI	Plastic bonding, Potting Material, Automotive, Aerospace, Joining hinges	5,000	2-part-Methyl-Methacrylate	Room temperature	Fast curing
Penloc® GTI-C	Glass bonding, Potting Material	5,000–6,000	2-part-Methyl-Methacrylate	Room temperature	Translucent
Penloc® GTI-S	Plastic bonding, Potting Material, Automotive, Aerospace	5,000–6,000	2-part-Methyl-Methacrylate	Room temperature	Flexible, resistant to high temperatures, high flash point
Penloc® GTN	Plastic bonding, Potting Material, Automotive, Aerospace, Joining hinges	15,000–30,000	2-part-Methyl-Methacrylate	Room temperature	Flexible, resistant to high temperatures, high flash point, low in odour
Penloc® GTR	Plastic bonding, Potting Material, Automotive, Aerospace	4,000	2-part-Methyl-Methacrylate	Room temperature	Flexible, resistant to high temperatures, high flash point
Penloc® GTR-VT	Plastic bonding, Potting Material, Automotive, Aerospace, Overhead application	20,000–30,000	2-part-Methyl-Methacrylate	Room temperature	Stable, green color

Technical Datasheets: www.panacol.com/products/data-sheets

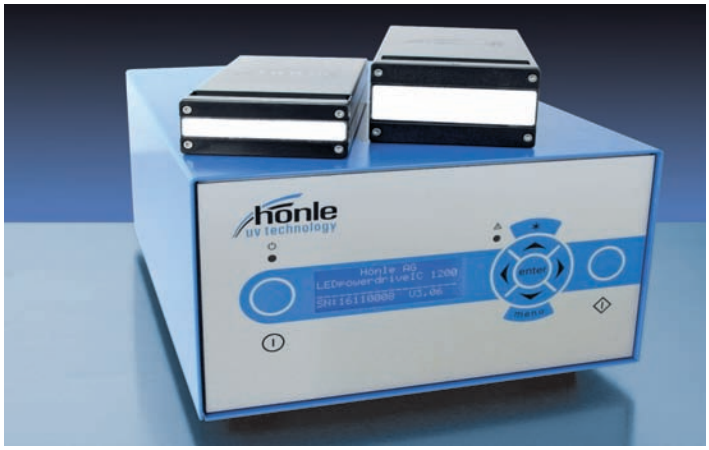
Perfect Curing of Adhesives and Sealing Compounds with High Performance UV Equipment from Hönle

Hönle UV Lamps

The curing of Vitralit® products can be best optimized with Hönle UV equipment.

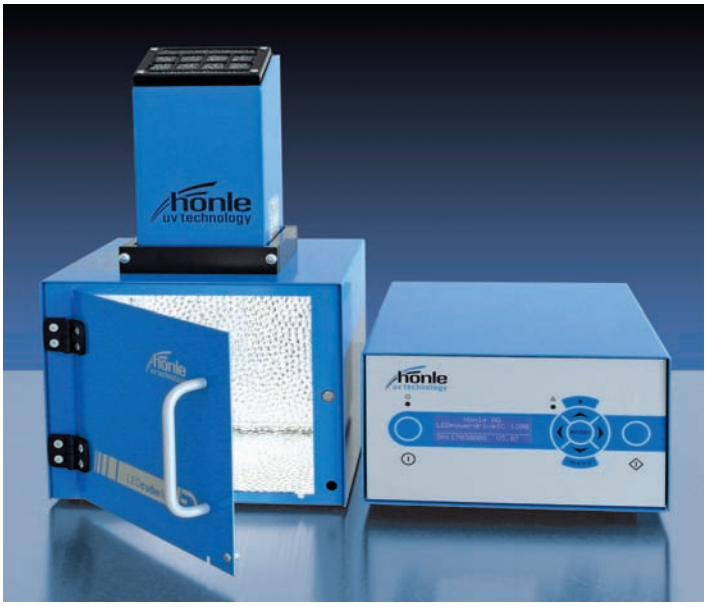
Hönle provides custom-made products adjusted to the individual requirements:

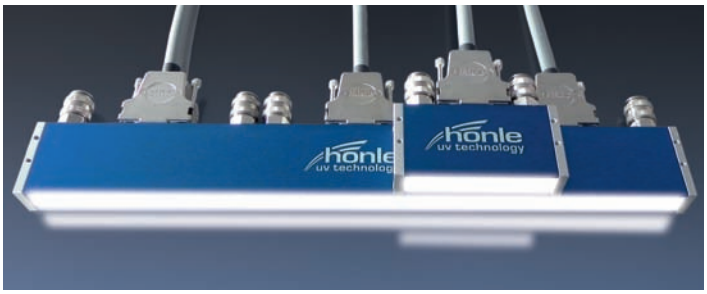
- UV point sources
- UV flood lamps
- UV curing chambers



Hönle LED-UV Lamps

In addition to conventional UV curing technology with gas discharge lamps Hönle is also a leading supplier of LED-UV systems.





You can find further information about our product groups in our special product data sheets.
For our comprehensive range of accessories for each product series, please ask for detailed information sheets.

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