

Vitralit®
UV and Light-Curing Adhesives

The Vitralit® System

- UV acrylates
- Light-curing acrylates
- UV epoxies
- Light-curing epoxies
- UV polyester

System Properties

- Single-component systems
- Short production times
- Solvent-free
- Low energy costs
- Excellent electrical properties
- Outstanding temperature and chemical resistance

The Vitralit® System – a Comprehensive Product Range for Numerous Applications...

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 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.

Electrical Engineering/Electronics							
Vitralit®	2009 F	4451	1691	1657	6104 VT	4732 VT	6137
Typical Applications	Conformal Coating	Conformal Coating, Foil bonding	Glob-Top	Glob-Top Sealant for Large/High Parts	Corner Bonding, Mounting Large Parts on PCB	Corner Bonding, Potting, Mounting Large Parts on PCB	Die-Attach, Heat Sink Bonding, Thermally Conductive
Viscosity (mPas)	100 – 200	600 – 800	280,000 – 310,000	120,000 – 130,000	75,000 – 90,000	30,000 – 40,000	150,000 – 170,000
Temperat. Resist. (°C)	-40 to +180	-40 to +130	-40 to +180	-50 to +150	-40 to +200	-40 to +120	-40 to +180
Curing	UV / Thermal	UV	UV / Thermal	UV	UV / Thermal	UV / VL	UV / Thermal
Color	Transparent	Transparent	Black	Light Grey	Translucent	White	White
Characteristics	Flexible, Excellent Chemical Resistance	Quick Curing, Low Shrinkage, Very Elastic	High Ion Purity, Excellent Temperature Resistance	Low Ion Content, Quartz-Filled, Thixotropic, Flexible	High Temperature Resistance, Good Adhesion on Metals and Sintered Materials	High Viscose Flexible Gel, LED Optimized Curing, Good Adhesion to Many Substrates	High Chemical Resistance, Good Adhesion to Glass, Aluminium and Ceramics, Good Heat Conduction

Potting							
Vitralit®	2655	2665	1722	6104	UD 5134	6128	UD 8559 LV
Typical Applications	Flip-Chip Underfiller	Flip-Chip Underfiller	Sealing of Plugs, Switches and Relays, Parts on FR4	Sealing Rotors and Sensors	Bonding, Sealing, Encapsulating Electrical Parts	Adhesive/Sealant for Switches, Plugs, Relays	Plugs, Relays and Connector Sealing and Potting
Viscosity (mPas)	200 – 400	3,000 – 5,000	5,000 – 8,000	3,500 – 6,000	15,000 – 25,000	800 – 1,200	700 – 1,000
Temperat. Resist. (°C)	-50 to +150	-55 to +175	-40 to +120	-40 to +200	-40 to +150	-40 to +150	-20 to +120
Curing	UV / Thermal	UV / Thermal	UV	UV / Thermal	UV / Thermal	UV / Therm. + Activ.	UV/VL + Humidity
Color	Transparent	Transparent	Pink Transparent	Translucent	Grey-Yellow, Viscous	Translucent	Translucent
Characteristics	Low Shrinkage and Small CTE, Good Capillary Behaviour, High Ion Purity	Cationic, Extremely Reliable in Aerospace Applications, Low CTE	Good Adhesion to Thermoplastic Synthetics, Low Shrinkage	High Temperature Resistance, Good Adhesion on Metals and Sintered Materials	UV- and Thermally Curing	Good Adhesion to Many Materials, Various Viscosities Possible	Good Adhesion to Thermoplastics, Proper Flow Characteristic, Fast Curing under UV Irradiation

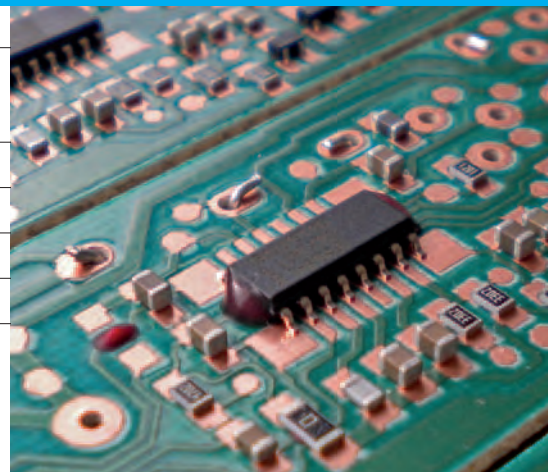
Smart Cards							SMD
Vitralit®	UC 2017	1600 LV	1650	1680	1688	1671	5607
Typical Applications	Sealing of Plugs, Switches and Relays, Fixing Parts	Glob-Top Sealant for Larger Chips	Glob-Top, Covering of Small Dies	Glob-Top, Covering of Small Dies	Glob-Top, Covering of Small Dies	Dam Compound	UV Fixation of SMD Parts
Viscosity (mPas)	14,000 – 22,000	5,000 – 6,000	6,000 – 9,000	6,000 – 9,000	3,000 – 4,000	250,000 – 300,000	1,000,000 – 2,000,000
Temperat. Resist. (°C)	-40 to +150	-40 to +180	-40 to +150	-40 to +150	-40 to +150	-40 to +180	-40 to +150
Curing	UV	UV / Thermal	UV	UV	UV	UV / Thermal	UV / Thermal + Activ.
Color	Transluc./Reddish	Grey	Grey	Grey	Grey	Grey	Red
Characteristics	Thixotropic, Gap-Filling, Low Heat Expansion	High Chemicals Resistance, High Tg, High Strength	Flexible, Low Water Absorption, Grain Size up to 150 µm	Flexible, Low Water Uptake, High Ion Purity, Small Grain Size of max. 12µm	Flexible, Low Water Uptake, High Ion Purity, Small Grain Size of max. 12µm, Good Flow Characteristics	Stable, Wet-on-Wet Application with Filler Material, Ion-Free	High Viscose Material, Fast Pre-Fixation of SMD Parts, Thermal Curing During Re-Flow Process Possible

Dome Coating				Wire Tacking		Metal Bonding	
Vitralit®	2020	2008	UV 3675	UV 2113	9181	4282 mod2	6125
Typical Applications	Dome Coating Epoxy Based	Decorative Anti Scratch Coating, Dome Coating	Dome Coating Epoxy Based	Thermoplastics	Wire tacking, Bonding and Sealing Electric. Compon.	Ferrite Bonding, Screw and Thread-locking Adhesive	First Fixation of Metal
Viscosity (mPas)	200 – 400	200 – 300	150 – 250	19,000 – 32,000	4,000 – 7,000	500 – 600	4,000 – 6,000
Temperat. Resist. (°C)	-40 to +160	-40 to +180	-40 to +120	-40 to +150	-40 to +150	-40 to +170	-40 to +150
Curing	UV	UV / Thermal	UV / VL	UV / VL	UV / VL	UV / Activator	UV / Therm./ Aktivator
Color	Clear, Colorless	Clear, Colorless	Clear, Colorless	Grey-Yellow	Yellowish	Light Green	Translucent
Characteristics	High Glossy, Scratch Resistance Surface	Slightly Flexible, Scratch Resistance Coating, Polishable	High Strength, Scratch Resistance, High-Gloss Surface	Good Adhesion to Many Materials	Good Adhesion to Many Plastics Like PC, PMMA and PVC and Coil Coatings, Fast Curing	Anaerobic Curing in Shadow Zones, Good Adhesion to Metals	Good Adhesion to Metals, First Fixation Via UV, Thermal or Activator Based Second Curing Step

Glass Bonding							
Vitralit®	6128 o.A.	6128	6133	7561	7562	UV 2725	VBB-N
Typical Applications	Glass-Metal/Stone/Marble, Thermoplastic Materials	Glass-Metal/Stone/Marble, Thermoplastic Materials	Glass-Metal/Stone, Lamin./Temp. Glass-Metal, Hard Mat.	Humidity Resistant Glass Bonder, Solar Modules	Glass/PC, Glass/Laminated Glass/Tempered Glass	Large-Surface Glass-Glass/Metal/Stone	Bevelbonder, Optical Filter, Suitable for Bonding Large Glass Areas
Viscosity (mPas)	100 – 300	550 – 1,000	600 – 1,000	500 – 850	500 – 800	200 – 400	50 – 150
Temperat. Resist. (°C)	-40 to +150	-40 to +150	-20 to +130	-50 to +150	-40 to +150	-20 to +140	-40 to +140
Curing	UV / Thermal + Activ.	UV / Thermal	UV / VL	UV	UV / VL	UV	UV / VL
Color	Transparent	Transparent	Clear, Colorless	Clear, Colorless	Clear, Colorless	Clear, Colorless	Clear, Colorless
Characteristics	Also Combination Curing (UV/Heat), High Strength and Impact Resistant	Also Combination Curing (UV/Heat), High Strength and Impact Resistant	LED-Optimised Curing, High Strength and Impact Resistant	Water Resistant and Dish Washer Proofed	Flexible, for Large-Area Bonds, Very Low Moisture Absorption	High Elongation at Break, Very Elastic, Good Resistance to Peeling	Particular Humidity Resistance, UV Resistant, No Yellowing

Medical Equipment				Plastic Bonder			
Vitralit®	7041 F	1702	6108 T	7641	4731	4731 VT	VBB-1
Typical Applications	Needle Bonder, Connect. of Tubes, Fitting and Housings Made of Plastics	Medical Plastics Bonding, USP Class VI	For Glass/Metal, USP Class VI, ISO 10993	PMMA and PC Edge-to-Edge Bonding	PMMA, PC and Glass Surface Bonding	PMMA, PC and Glass Surface Bonding	Glass Bevel Bonds, Elast. Edge-to-Edge Bonding, Plastics/Glass
Viscosity (mPas)	50 – 90	45 – 80	4,000 – 6,000	50 – 100	900 – 1,500	22,000 – 28,000	1,000 – 1,500
Temperat. Resist. (°C)	-40 to +120	-55 to +135	-40 to +160	-30 to +120	-40 to +120	-40 to +120	-50 to +150
Curing	UV / VL	UV	UV/VL/Therm. + Activ.	UV / VL	UV / VL	UV / VL	UV / VL
Color	Slightly Yellow	Amber	Transparent	Clear, Colorless	Clear, Colorless	Clear, Colorless	Clear, Colorless
Characteristics	Capillary Flow, Good Adhesion when Bonding PC to Glass, Metal and Many Other Plastics	Good Adhesion to Plastics, Gas and Irradiation Sterilisation	Multifunctional, Excellent Adhesion, Resistant to Yellowing	LED-Optimised Curing, Excellent Capillary Action, High Strength	LED-Optimised Curing, Elastic, Surface Bonding PC and PMMA	LED-Optimised Curing, Elastic, Surface Bonding PC and PMMA, High Viskose Thixotr. Gel	LED-Optimised Curing, High Flexibility, Good Resistance to Peeling

Optics				
Vitralit®	UC 1608	1517	1507	UC 6215
Typical Applications	Fiber Optics, Lenses, Optical Application	Lens Fixation, Optical Application and Buildings	Chip Fibre Linking, FO Cable Bonding	Bonding, Sealing, Encapsulating Electrical Parts
Viscosity (mPas)	700 – 1,250	90,000 – 120,000	750 – 1,250	600 – 1,500
Temperat. Resist. (°C)	-40 to +175	-40 to +180	-40 to +175	-40 to +180
Curing	UV / Thermal	UV / Thermal	UV	UV
Color	Transparent	Grey	Transparent	Clear, Colorless
Characteristics	High Tg, Nano Size Fillers, High Optical Transparency	Ion Pure, High Tg, Low Shrinkage, Good Chemical Resistance, Good Adhesion to FR4, Glass and Metals	Low Insulation, High Tg, Nanostructured Fillers	Resistant to Intermediate High Temperatures up to 230 °C



Hönle UV Lamps

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

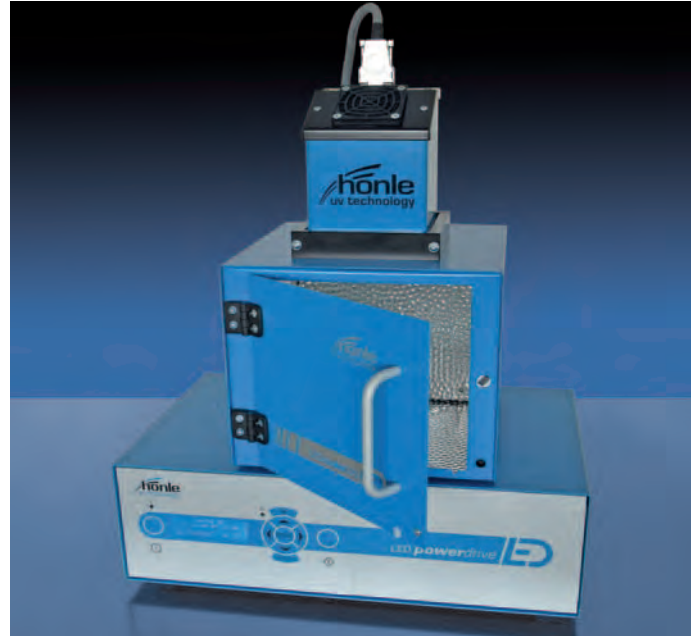
Hönle provides custom-made products adjusted to the individual requirements:

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



Hönle UV LED Lamps

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

hönlegroup



Eurobond
ADHESIVES LIMITED

Distributors for the United Kingdom
Eurobond Adhesives Ltd
Bonham Drive, Eurolink Industrial Estate
Sittingbourne, Kent ME10 3RY
Tel: +44 (0)1795 427888
Email: sales@eurobond-adhesives.co.uk
www.eurobond-adhesives.co.uk