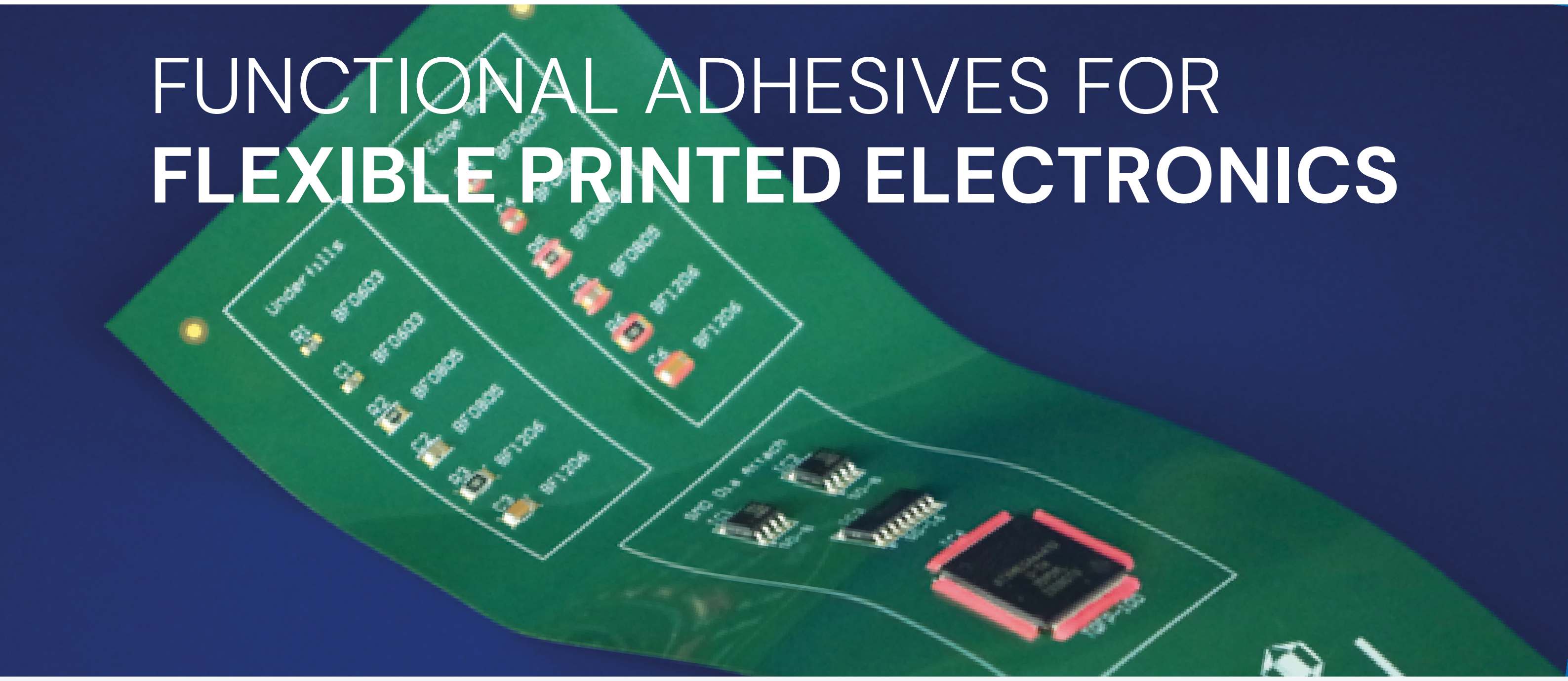
FUNCTIONAL ADHESIVES FOR FLEXIBLE PRINTED ELECTRONICS



Hoenle's conductive adhesives can be used to efficiently attach flexible resistors and create electrical connections in solar cells, touch sensors and portable devices. Although originally developed for traditional applications, our adhesives can also be used in flexible circuits thanks to years of further development. These include underfills for chip attachment and structural adhesives for the edge bonding of components.

Significant advantages can be achieved when the design of the components, the assembly process, the properties of the adhesive and the curing process are precisely matched. Different curing technologies, such as UV/Vis or UV/Vis in combination with heat or moisture, are available for your specific application requirements and ensure the flexible adhesive cures completely and reliably, even in shaded areas.

KEY ADVANTAGES

- **High Versatility**
  Suitable for flexible resistors, solar cells, touch sensors and portable devices
- **Advanced Materials**
  Flexible underfills for chip attach and structural adhesives for edge bonding
- **Reliable Curing**
  UV/Vis, heat, or moisture ensure complete curing, even in shaded areas
- **Cost Reduction**
  Optimized bonding reduces total operational costs

FAST CURING VIA UV
OR LOW TEMPERATURE

EXCELLENT ADHESION TO
DIFFERENT SUBSTRATES

ELECTRICALLY CONDUCTIVE

FLEX PCB | SYSTEM SOLUTION

FLEX PCB | ADHESIVES

	Viscosity [mPas] (Rheometer, 25°C, 10s^{-1})	Curing*	Description
Customized Vitralit®	Adaptable	UV/VIS (+Thermal)	Flexible adhesives with high adhesion to several substrates
Vitralit® UD 8057	2,000 - 4,000	UV/VIS Moisture	High bond strength to several substrates, fixation via UV, moisture post curing in shadowed areas
Vitralit® UD 5138	22,000 - 30,000	UV/VIS/Thermal	Fluorescent, high bond strength to several substrates, fixation via UV, thermal post curing in shadowed areas
Customized Elecolit®	Adaptable	Thermal	Flexible electrically conductive adhesive with high bond strength to several substrates
Elecolit® 3648	10,000 - 15,000	Thermal	Flexible, electrically conductive with high bond strength to several substrates, fast curing at 100 °C
Structalit® 3060-1	7,000 - 10,000	Thermal	Flexible, high bond strength to several substrates, fast curing

*UV = 320 - 390 nm, VIS = 405 nm

UV CURING SYSTEMS

UV Sources	Dimension in mm	Available Wavelength in nm	Intensity in W/cm^2	Cooling
LED Spotlights	Light emission up to Ø 20	365/385/405	up to 20.000	air-cooled
LED Line Emitters	Light emission width 10/20/40, length variable	365/385/395/405/460	up to 25.000	air and water-cooled
LED Floodlights	Light emission 20x20 / 40x40 / 100x100 / 200x50	365/385/395/405/460	up to 30.000	air and water-cooled
LED Curing Chambers	Inner dimension 180x180 / 350x350	365/385/395/405/460	up to 5.000	air-cooled
LED Conveyor Belts	Belt width 110 - 520	365/385/395/405/460	up to 25.000	air and water-cooled

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