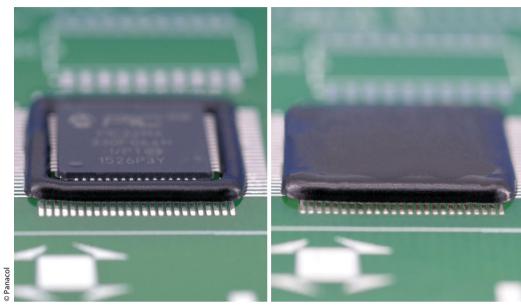
## New Frame-and-Fill Adhesives

Frame-and-fill processes are used to protect highly complex areas on electronic circuit boards. In the first step, a highly viscous barrier - the so-called frame - is applied. In the next step, this area is quickly filled with lower viscosity filler material (fill). With this precise process, areas on the circuit board can be protected from mechanical impact factors. This combination of frame-and-fill materials allows the application of minimum barrier and potting heights and cures to form a homogeneous coating. In the new frameand-fill adhesives from Panacol, the components are matched in such a way that the frame and fill areas can be optimally dispensed wet-on-wet without the still-liguid adhesives leading to undesired flowing on the PCB.

The frame material 'Structalit 5704' is a black, thermally curable and single-component epoxy adhesive. According to Panacol, this frame and glob top compound features very good bead stability and a high glass transition temperature of 150 °C to 190 °C. Due to its very low ion content of less than 20 ppm, the material is suitable for chip encapsulation on electronic circuit boards.



Structalit 5704 is applied as a stable 'frame' and then filled with low-viscosity material to form a homogeneous protective coating of sensitive components.

Panacol has developed a range of adhesives with different rheological properties as fill materials. According to the manufacturer, the adhesives 'Structalit 5717' to 'Structalit 5721' have an optimized flow behavior, which means that they can be used on various chip and bonding wire geometries due to the differently adjusted viscosities. //

More information: www.panacol.de

## **Bio-Based Reactive PUR Hot Melt Adhesive**



With the latest member of the 'Jowatherm-Reaktant GROW' product family, adhesives expert Jowat is presenting according to own statement the first certified biobased reactive polyurethane hot melt adhesive for textile laminating. The product is marked with the labels 'Bio-Based Certification by DIN' and 'Green Leaf by Intertek'.

'Jowatherm-Reaktant GROW 631.20' – the first certified bio-based reactive polyurethane hot melt adhesive for textile laminating The sustainable adhesive with the name 'Jowatherm-Reaktant GROW 631.20' has a certified renewable raw material content of over 20 % and fulfils high requirements for washing resistance and soft textile feel. It can be flexibly processed at temperatures between 110 °C and 140 °C and can be easily integrated into existing processes.

As Jowat points out, possible applications include the manufacturing of mattresses and upholstery covers, medical textiles, protective clothing, building textiles, abrasive materials, cleaning textiles, and a variety of established textile laminating applications in the automotive industry. //

Further information: www.jowat.com