IQ-BOND 7294 UV

One component, high viscosity, high thixotropy, non-flowing, epoxy-based, UV-curable DAM adhesive

Product Description:

IQ-BOND 7294 UV is a UV-curable, solvent-free, one-component, pre-mixed, epoxy based adhesive developed as a "dam" material in dam & fill applications.

IQ-BOND 7291 UV is the corresponding, low viscosity, low thixotropic, self-levelling "fill" material. As both materials are very similar in chemical composition, the can be easily co-cured during the same UV-curing process.

Typical applications include the encapsulation of wire-bonded IC's in smart card and/or other micro-electronic applications.

When properly cured, IQ-BOND 7294 UV exhibits good adhesion on typical substrates used in smart card technology, such as glass-fiber reinforced epoxy laminates.

Although IQ-BOND 7294 UV has a very high viscosity, it's easily applicable by standard dispensing. The very high thixotropic nature of IQ-BOND 7294 UV assures no-flow properties after dispensing and during cure, assuring the geometry before and after cure remains perfectly the same.

For cleaning un-cured IQ-BOND 7294 UV, the use of IQ-CLEANER 9500 is recommended.

Uncured Product Properties:

- Appearance: Off-white
- Chemistry: Epoxy
- Odor: Faint
- Density: ~ 1,5 gr/cc
- Mix-Ratio: Not Applicable – pre-mixed single component adhesive
- Viscosity: ~ 300.000 mPa.s (Brookfield RVII – SSA 25 –5 rpm)
- Thyxotropy: ~ 7,0
- Cure Speed: ~30 seconds at 120 mW/cm² for a 500 µm thick layer (UV-A)

  Although not all applications require a thermal post cure, this may help to reach optimum properties. If this is not feasible, final properties after UV-cure are realized 24hrs after the UV cure process.

Cured Product Properties:

- Temperature range of use: - 40°C to + 125°C
- Modulus at 25°C: ~ 0,2 – 0,3 GPa
- Tg: ~ 25°C
- Die shear strength: > 100 kg/cm²
- Shore hardness: ~ 70 shore D

Storage stability:

IQ-BOND 7294 is a material of which the chemistry is stable at room temperature for a long period of time. However, due to the high filler loading of the material, it's recommended to store IQ-BOND 7294, protected from light and moisture, at temperatures below 5°C. In these conditions, the product remains stable for 6 months.

It's recommended not to store IQ-BOND 7294 UV together with other adhesives such as 1 and 2-part epoxies, 2-part acrylics, polyurethanes, silicones cyanoacrylates, anaerobics, etc. Also contact with amines, amides and reducing agents should be avoided.