



IQ-BOND 5404-HV-CE

Electrically Conductive Adhesive

One Component, Silver filled, Electrically Conductive Adhesive

Higher viscosity version of IQ-BOND 5404-CE

Product Description:

IQ-BOND 5404-HV-CE is a solvent-free, one-component, pre-mixed, thermoset epoxy based adhesive. The silver particles used in IQ-BOND 5404-HV-CE are very small, making it suitable for dispensing and jetting through very fine needles.

The rheology of IQ-BOND 5404-HV-CE is ideally suited for stamping processes, enabling very fine dot placement for small component attachment, and fine-pitch applications.

IQ-BOND 5404-HV-CE has a work life at room temperature, of about 48 hrs.

IQ-BOND 5404-HV-CE bonds very well to metals, glass, ceramics, as well as plastics. It is used for applications where elevated soldering temperatures are not preferable, and low-temperature cure is required. Typical applications include bonding micro-electronic components onto temperature sensitive substrates, such as flexible circuits. Also for those applications where solders are too rigid, the flexible nature of IQ-BOND 5404-HV-CE makes it a suitable alternative for improved thermal cycling resistance.

For cleaning uncured IQ-BOND 5404-HV-CE, the use of IQ-CLEANER 9500 is recommended, although, also other organic cleaning solvents, such as IPA and/or Aceton can be considered.

Product Properties:

- Appearance: Silver, thixotropic Paste
- Chemistry: Epoxy
- Mixing Ratio (by wght %): Not Applicable , pre-mixed one-component
- Viscosity (mPa.s): ~ 140.000 mPa.s (Brookfield RVII – CP51 – 0,3 rpm @ 25°C)
- Working Life: ~ 24 hrs
- Density: ~ 3,0 gr/cc
- Fineness: < 20 µm
- Volume Resistivity: ~ 5 x 10⁻⁴ Ohm.cm (after cure 60 minutes 150°C)

- % Ash residue: ~ 78 +/- 1
- Cure Speed *:
 - 60 minutes @ 150°C - Volume resistivity <math> < 5 \times 10^{-4} \text{ Ohm.cm}</math>
 - 120 minutes @ 150°C - Volume resistivity <math> < 1 \times 10^{-3} \text{ Ohm.cm}</math>

*: IQ-BOND 5404CE requires cure temperature > 150°C to assure a good conductivity. Cure temperatures < 150°C may not result in sufficient low volume resistivity.

Instructions For Use of IQ-BOND 5404-HV-CE :

Prior to use, it's advised to let the adhesive IQ-BOND 5404-HV-CE equilibrate to room temperature. Depending the size of syringes, 15 – 30 minutes is typically recommended. It is advised to avoid too high humidity, as it may cause moisture accumulation in the adhesive, which can reduce the worklife of IQ-BOND 5404-HV-CE.

To ensure long term performance of the assembled parts, a complete cleaning of the substrates is recommended to remove contaminations, such as surface oxides, dust, moisture, etc.

It is recommended to read thoroughly the information concerning health and safety in the Material Safety Datasheet, prior to usage.

Storage stability:

When stored at -20°C, storage life is 3 months from date of production. In case of storage at -40°C, the shelf life is 6 months.

Attention:

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