



IQ-BOND 2242-FR-HT

Black, low T°-cure, 1-komponent, flame retardant, high-thixotropic adhesive

Pre-Mixed, Epoxy-based Adhesive with very long potlife, meets UL94-V0

Product Description:

IQ-BOND 2242-FR-HT is a solvent-free, one-component, pre-mixed, thermoset epoxy based adhesive, developed for dispensing applications. However, the high thixotropic rheology also allows stencil and/or screen printing applications.

IQ-BOND 2242-FR-HT can be cured at temperatures as low as 80°C.

It has been designed specifically for bonding of temperature sensitive components to printed circuit boards. The chemistry has been selected and optimized for allowing cure at low temperatures (80°C), which nevertheless results in high adhesion strengths.

Its chemistry has been selected to provide good green strength, resulting in optimum pick & place performance of all common SMD components.

IQ-BOND 2242-FR-HT has been optimized to meet the cure profile of 4-5 minutes @ 105°C. For optimum curing performance, it's recommended to do the cure process in a conveyor belt oven. When curing IQ-BOND 2242-FR-HT in a convection oven, it is recommended to apply a longer curing time for optimum adhesion properties.

Unlike many other single-component adhesives, characterized by a short potlife, IQ-BOND 2242-FR-HT has a long potlife of > 1 week at room temperature.

When fully cured, IQ-BOND 2242-FR-HT is resistant to moisture, cleaning agents and dilute acids and bases. Also it exhibits very good high thermal resistance, for example typical SnPb-, as well as lead-free soldering processes.

IQ-BOND 2242-FR-HT is a solvent-free, 100% solids material and RoHS / REACH compliant.

For cleaning un-cured IQ-BOND 2242-FR-HT from stencils, screens, squeegee, or other equipment, the use of IQ-CLEANER 9500 is recommended.



Product Properties:

- Appearance: Black Thyxotropic Paste
- Chemistry: Epoxy
- Odor: Faint
- Mix-Ratio: Not Applicable – pre-mixed single component adhesive
- Fineness: < 30 µm
- Viscosity: ~ 250.000 mPa.s (Brookfield SSA, SC-25 at 10 rpm)
- Thyxotropic Index > 4 (Brookfield SSA, SC-25 – ratio of 1 rpm / 10 rpm)
- Cure Speed:
 - 1 minutes @ 150°C
 - 4 - 5 minutes @ 105°C *
 - 60 minutes @ 80°C

For good mechanical strength, cure according above conditions is recommended, and a minimum of 80°C required. The final bond strength will depend on the residence time at the given cure temperature. Typically, a higher curing temperature, as well as a longer cure time will result in higher adhesion strength, and improved polymer crosslinking.

* To realize the cure of 4 – 5 minutes at 105°C, it is highly recommended to use a conveyor belt oven. Cure in a convection air oven at 105°C may require longer curing times, f.e. 7 - 10 minutes., depending the type of convection oven.

Storage stability:

Storage stability is 6 months from date of production, when stored at temperatures below 5°C, in closed containers. At temperatures < -20°C, storage stability is 12 months. At room temperature, IQ-BOND 2400 has a long worklife / potlife of > 1 week.

Attention:

The technical information contained herein should not be used in the preparation of specifications, as it's intended for reference only. Please contact your local sales representative for support. The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Roartis specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Roartis products and services. Roartis specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license. We recommend that each prospective user tests his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more European or foreign patents or patent applications. The information contained in this data sheet corresponds to the present state of our knowledge ; it is intended for your guidance but we are not bound by it since we are not in a position to exercise control over the manner in which our products are used. Moreover, the attention of the user is drawn to the risks that could possibly occur should a product be used for an application other than that for which it is intended.