



# IQ-BOND 2612-T-FC

## Thermally Conductive Adhesive For Thermo-Couple and/or Heat-Sink Bonding

Very Fast Cure, Two Component, Easy Mix-Ratio 1:1

*Accelerated version of IQ-BOND 2611-T-FC*

*(Faster Cure, Shorter Potlife)*

### Product Description:

IQ-BOND 2612-T-FC is a dielectric, solvent-free, two-component, thermoset epoxy based adhesive, which provides thermal conductivity in a very short time, even at low curing temperatures. Actually, when curing the IQ-BOND 2612-T-FC at room temperature, good mechanical strength is already achieved within 4 - 6 minutes.

IQ-BOND 2612-T-FC is the accelerated cure version of IQ-BOND 2611-T-FC. It will cure even faster. As a consequence, the potlife after mixing is slightly shorter.

IQ-BOND 2612-T-FC has been designed to have an easy mix-ratio of 1:1 by weight.

IQ-BOND 2612-T-FC is supplied as a two-component material, and has a long shelf life at room temperature, of 12 months.

IQ-BOND 2612-T-FC bonds very well to metals, PCB-circuits, glass, ceramics, as well as plastics. It is used for applications where a thermal conductive bond needs to be realized in a short time.

Typical applications include bonding thermocouples on solder joints and/or heatspreaders (heatsinks) onto powerdevices.

Also for fast-cure, structural bonding applications, where heat dissipation is an added value, this fast cure adhesive can be a solution. More specifically, it can be used for bonding radiator devices.

IQ-BOND 2612-T-FC is a solvent-free, 100% solids material, and is supplied as a high viscous and thixotropic paste, assuring it will not flow during application.

It's chemistry has been selected to be able to resist multiple consecutive solder-reflows, with peak temperature up to 260°C. For applications where the temperature is exposed for long periods at elevated temperature, the chemistry is able to withstand 125 °C – 150°C.

For cleaning uncured IQ-BOND 2612-T-FC, the use of IQ-CLEANER 9500 is recommended, although, also other organic cleaning solvents, such as IPA and/or acetone can be considered.

### Product Properties:

- Appearance: White Paste
- Chemistry: Epoxy
- Mixing Ratio (by wght %): 100 parts A / 100 parts B
- Thermal Conductivity: ~ 1,3 W/m.K
- Viscosity Part A: 10.000 mPa.s (ROA-TP-01)
- Viscosity Part A: 30.000 mPa.s (ROA-TP-01)
- Viscosity Mix A+B: 20.000 mPa.s (ROA-TP-01)
- Working Life: 2 - 3 minutes
- Density: ~ 1,4
- Adhesion Strength: > 15 MPa (measured after 24hrs at RT°C)
- Green Strength: > 5 MPa (measured after 3 min at RT°C)
- Cure Speed \*:
  - 4 – 6 minutes @ 25°C
  - 1 minute @ 60°C

### Instructions For Use of IQ-BOND 2612-T-FC :

To obtain optimum properties, it's recommended to use an exact mixing ratio of part A and part B. For IQ-BOND 2612-T-FC, this means 100 parts of part A, with 100 parts of part B, by weight.

The mixing of part A and part B, should be done in a clean container.

Prior to bonding the substrates, makes sure part A and part B of IQ-BOND 2612-T-FC are thoroughly mixed.

Furthermore, 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:

Storage stability is 12 months from date of production, when stored dry at room temperature, in closed containers. In case storage has been done for quite a long time, the part A of IQ-BOND 5604-CE-FC may have crystallized. This crystallization can be easily reversed by putting the part A for about 1 – 2 hours in an oven at 50 – 60°C.

Once the crystallization has been reversed, the original properties are obtained again, and cure as specified in above datasheet can be achieved.

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 service-FCs. 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. 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.