

QZ 3289 / QZ 3289F

Adhesion Promoter for Epoxy Mold Compound

QZ 3289 is a promotor adhesion concentrate which can be used to improve adhesion between Epoxy Mold Compound (EMC) and substrates such as polyimide, copper or aluminium (e.g. lead frames, bond paths, etc.). The use of QZ 3289 is recommended for applications with challenging reliability requirements, which show delamination between EMC and the substrate when no adhesion promotor is used.

QZ 3289 adhesion promotor concentrate is also available with a fluorescent dye (called QZ 3289F) to visually validate the adhesion promotor presence during sample build-up or in the production process. QZ 3289F has the same composition as QZ 3289 with a fluorescent dye added, resulting in a light blue fluorescence during UV exposure after coating. Solution preparation and application method of QZ 3289F are identical to QZ 3289.

QZ 3289 and QZ 3289F adhesion promoter concentrates can be purchased through FFEM in 234 mL bottles (15 bottles per box) or 950 mL bottles (4 bottles per box). These concentrate solutions have a one-year shelf life at room temperature.

QZ 3289 is an external adhesion promotor to improve adhesion between:

- Cu/Al leadframes & EMC
- Al bondpads & EMC
- Polyimide & EMC

QZ 3289**QZ 3289F**

Test setup before coating,
no UV exposure

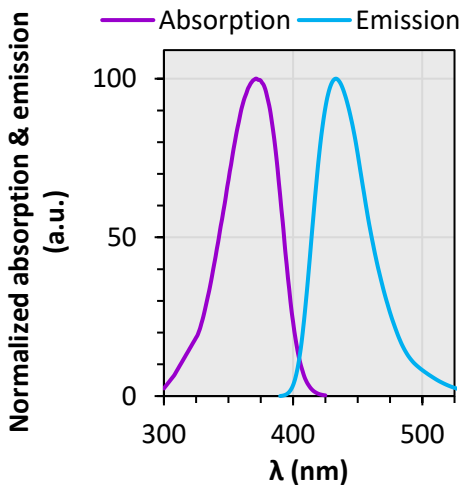


Test setup before coating,
UV exposed



Test setup after coating,
UV exposed

QZ 3289F fluorescence



How to use QZ 3289 / QZ 3289F:

Preparation

Diluent: Mix 200 mL of DI water with 4 liters of IPA (5/95 vol/vol, 6/94 w/w). This solution can be stored in glass or plastic containers.

Adhesion Promoter: Mix 1 part QZ 3289 or QZ 3289F with 9 parts diluent in a plastic (PE or PP) container. Let the solution rest 1 hour before use. Store the diluted adhesion promoter solution at room temperature in a sealed **plastic** (PE or PP) container. Discard after 5 days.

Coating

Flood the substrate (wafer surface and lead frame or PI) with ample amount of adhesion promoter solution, using one of the following methods:

- 1) Dispense on coater (bare wafer only): dispense, ramp up to 2000-4000 rpm for 10 seconds ; Spin dry for 20 to 30 seconds.
- 2) Spray coating: coat die & substrate, dry with air or N₂
- 3) Immersion: immersion of package & die in wet bench. Dry the surfaces with air or N₂-gun.

Bake

Optional bake at 100-120°C for 20 seconds.

Bake is recommended for porous substrates or if relative humidity in fab is greater than 30%.

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Please refer to the material safety data sheet (MSDS) for complete information on storage and handling, toxicological properties, personal protective equipment, first aid, spill and leak procedures, and waste disposal. To order an MSDS, call your FFEM sales office. Before using or handling this product, review the MSDS information thoroughly.

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