Three Bond 2217H

(One-comp. Epoxy Resins / Chip Bonder)

The products Three Bond 2217H is an one-component epoxy resin, which have been specially developed for surface mounting, in order to keep the components in position on the printed circuit boards during the placement and the soldering process. This SMD adhesive (Surface Mount Adhesives) excel in fast application methods and reduced curing times and ensure a perfect safety of the process.

1. Features

- The simple application by means of automatic dispensers and screen printers allows a faster placement.
- The fast curing of the resins at low temperatures (80°C ~) enables shorter processing times (example 150°C x 1 ~ 5 min).
- As the resins contain more than 99 % of non-volatile matters, there is only a minimal shrinkage and outgassing while curing.
- The cured resins excel in excellent electric properties as well as in good chemical and thermal resistance.
- Perfectly suited as Chip-Bonder for Quad Flat Package (QFP).

2. Typical properties

Test Item	Result	Unit
Colour	Red	Brown
Viscosity at 25°C [Pa·s]	196	130
Density at 25°C [g/cm³]	1.25	1.25
Curing time at 80°C [min] 100°C [min] 120°C [min] 150°C [min]	30 ~ 40 20 ~ 30 5 ~ 10 1 ~ 5	30 ~ 40 20 ~ 30 5 ~ 10 1 ~ 5
Shore-hardness	89 D	83 D
Shear strength Fe/Fe [MPa]	25,2	21,6
Glass transition temperature [°C]	99	95
Coefficient of thermal expansion [°C^{-1}]	77×10^{-6}	83×10^{-6}
Water absorption (100°C x 1 h) [%]	+ 0.62	+ 0.53
Shelf life at 5°C [months]	6	6

3. Handling

- Keep the epoxy resins tightly closed in the original container and store them in a dark, dry, sufficiently ventilated and cool place.
- Before opening the container let the products reach room temperature as otherwise the formation of dew would be resulting.
- In order to obtain optimal results remove humidity, fat and other impurities from the fitting surfaces.
- According to the nature of the joints (width, surface roughness, unevenness) apply an appropriate quantity of epoxy resins uniformly on one of the fitting surfaces and join the parts immediately, position them correctly and fix them.
- The degree of curing varies depending on the thickness of the coating, the ambient temperature and the duration of the process.
- When using precision resins, changes in viscosity versus the ambient temperature are to be verified.
- Products once transferred into another container should not be returned to the original container. Excess sealant can be easily wiped off with a cloth.

4. Packing

Different 20 ml, 30 ml Syringes (e.g. Semco, Panasert, Musashi and Fuji) and 370 g cartridges as well as 1 kg cans and 230 g DEK Pump Print cassettes