CHIPQUIK® AD7-5S

Datasheet revision 1.0 www.chipquik.com

Thermoset Chip Bonding Epoxy (Red) 5g/5cc syringe (Thermal (Heat) Cure Adhesive/Glue)

Product Highlights

Lead-Free, RoHS 3 Compliant, REACH Compliant

Heat curing epoxy adhesive designed to bond surface mount chips and ICs to printed circuit boards (PCBs). Low Viscosity. Designed to be dot/line dispensed.

Allows large/heavy surface mount components to be permanently bonded to a PCB during reflow, allowing two-sided surface mount reflow without larger chips/ICs coming loose.



Specifications

Curing Time:	120 to 180 seconds at 190+ °C (374+ °F)
Recommended Curing Temperature:	190 to 260 °C (374 to 500 °F)
Maximum Curing Temperature:	260 °C (500 °F) Designed to cure at leaded (Sn63/Pb37) and lead free (SAC305) reflow temperatures.
Maximum Recommended Dot Size:	10mm x 10mm x 1mm (100mm^3)
Operating Temperature Range:	-40 to 125 °C (-40 to 257 °F) (After Curing, After Reflow)
Density:	1.4g/cc
Viscosity (Malcom @ 5 RPM, 25°C):	44 Pa-s (44,000 mPa-s)
Packaging:	5g/5cc Syringe
Shelf Life:	Refrigerated >24 months, Unrefrigerated >24 months

Stencil Life

>12 hours @ 20-50% RH 22-28°C (72-82°F), >8 hours @ 50-70% RH 22-28°C (72-82°F)

Application

Apply by dot dispensing, line dispensing, or with stencil and squeegee.

Cleaning

Clean using isopropyl alcohol (IPA).

Storage and Handling

Store at 3-25°C (37-77°F). Do not freeze. Allow 4 hours for thermoset chip glue to reach an operating temperature of 20-25°C (68-77°F) before use.

Transportation

This product has no shipping restrictions. Shipping below 0°C (32°F) or above 25°C (77°F) for normal transit times by ground or air will not impact this product's stated shelf life.

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Chip Quik AD7 Red Glue Usage Instructions

Chip Quik AD7 Red Glue only works as an adhesive after it has been applied between a part and the PCB, then baked in a reflow oven (which cures the AD7 Red Glue), and then cooled. Before it has been heated (cured), it is slightly sticky, but will not hold parts in place. Once baked and cooled, upon additional reflow cycles, the cured AD7 Red Glue will stay hardened and will help hold heavier parts in place while the solder alloy joints melt and then re-solidify during secondary reflow.

How to Apply and Cure Chip Quik AD7 Red Glue

- First apply solder paste to the top side of your PCB.
- Then apply AD7 Red Glue to the top side under where any heavy parts will be placed.
- Place the top side parts on the PCB.
- Reflow the PCB. Standard leaded and lead-free solder paste reflow cycles will normally be hot enough to fully cure the AD7 Red Glue as well, which requires at least 120-180 seconds at 190-260 Celsius to cure.
- Flip the PCB over.
- Apply solder paste to the bottom side.
- You can also apply AD7 Red Glue to the bottom side under any heavy bottom side parts, if you are ever planning to reflow the PCB for a third reflow cycle, or if you want the added strength of the AD7 Red Glue also holding the bottom side parts on.
- Place the bottom side parts on the PCB.
- Reflow the PCB.

Alternatively, you can switch the order to bottom side first, then top side. Usually, you want to first reflow the side with the lightest components, and reflow the heaviest part side second.

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