



CUMING MICROWAVE

C-BOND 255

RoHS
Compliant

TECHNICAL BULLETIN 230-4

FLEXIBLE, TWO-COMPONENT SILICONE ADHESIVE

C-BOND 255 is a general purpose silicone adhesive. It is a two component material requiring a heat cure, but does not need exposure to air or to moisture for curing. Adhesion to metals, plastics, glass and ceramics is excellent.

C-BOND 255 adheres well to silicone rubber, and is the recommended adhesive for bonding silicone-based C-RAM sheets, such as the FLX, GDSS, and RGD-S grades.

TYPICAL PROPERTIES

Color: Clear

Usage Temperature: -55 to +230 °C
(-70 to +450 °F)

Hardness, Shore A: 50-60

Dielectric Strength: 25 kV/mm (650 V/mil)

Volume Resistivity: 10^{14} Ohm-cm

Dielectric Constant (10^2 to 10^{10} Hz): 4

Dissipation Factor (10^2 to 10^{10} Hz): 0.02

Weigh out the desired amount of C-BOND 255 in the ratio of 10 parts A : 1 part B into a suitable container. Mix thoroughly-- hand mixing is acceptable for small batches, but be sure to scrape the side of the container so no unmixed material is present.

It is recommended to draw a vacuum on the mixture to remove trapped air--trapped air may expand during the cure and affect the bond.

Apply a thin layer of adhesive to both surfaces using a brush or dust-free cloth. Mate the surfaces and apply pressure to squeeze out the excess. Ideally, the pieces being bonded should be held together under pressure during cure.

Cure at 120°C (250 °F) for 4 hours or at 175°C (350°F) for 2 hours. Pot life of the mix is at least 8 hrs at room temperature.

INSTRUCTIONS FOR USE

Clean the surfaces to be bonded prior to application of the adhesive. Alcohol or acetone work well to remove grease, dirt, and fingerprints. Scuffing surfaces with sandpaper will enhance the bond strength. While its use is not necessary, a coat of C-PRIME 215 silicone primer on the metal surface will further enhance the durability of the bond in demanding applications. See Technical Bulletin 215 for information on C-PRIME 215.

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AVAILABILITY

C-BOND 255 is available as a two-part kit comprising Part A and Part B, in the following sizes: 1 lb PINT (0.46 kg);
2 lb QUART (0.91 kg); and
8 lb GALLON (3.60 kg).

Consult Cuming Microwave for bulk orders.

Unopened containers, if stored at room temperature, should have a shelf life of at least 6 months.

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