GraphiMaterials

Bringing Better Material Solutions to Market

Two Part Graphite Adhesive

Our EBS- 2x Graphite Adhesive is a two part high temperature adhesive used to bond, fill and repair carbon-carbon and graphite components and structures used in vacuum or protective atmospheres to 5400 °F (2980 °C). It also works well to bond graphite felt and bi-polar sheets to metals, particularly in highly acidic solutions up to 575°F (300°C) in air or higher in non-oxidizing liquids.

Uses include bonding and patching carbon-carbon and graphite components such as brushes, RF susceptors, fixtures, electrodes, crucibles, furnace parts, metal-casting dies, and continuous casting dies, graphite flexible foil to graphite rigid insulation, graphite flexible foil to carbon/carbon composite, graphite flexible foil to graphite felt, and carbon/carbon composites to insulation.

Gallon Kit

EBS-2x is an easy-to-apply, brush-able, dispensable adhesive that contains no asbestos or solvents or VOC's. We have re-sealable 50ml and 400ml static mixer kits which automatically mix the two parts to minimize mixing, handling and waste. Quarts, gallons cans are available for application by hand mixing. Five gallon pails for use with a bulk dispensing system(ie, Grayco) available by request.

If needed, isopropyl alcohol, Acetone or MEK are recommended solvents for general surface cleaning prior to bonding. Apply EBS-2x to both clean surfaces, applying minimal pressure to ensure a uniform film is formed between joined surfaces. A strong mechanical bond is achieved after curing at room temperature for approximately 12 hours or for 30 minutes at 248°F (120 °C). We recommend allowing the bond, at room temperature to set for up to 6 hours to achieve a good green strength and maximum moisture resistance and tensile-shear strength after 12 hours.

Physical properties

- **Features:** 100% solids, no VOC's, no solvents
- Little or no bake out required
- **Appearance:** thick, pasty thixotropic liquid
- **Part 1**: 25,000 cps (CAP 2000+ Cone and Plate viscometer, cone 09, 100 rpm @25°C)
- **Mixed viscosity:** 15,000 cps (CAP 2000+ Cone and Plate viscometer, cone 09, 100 rpm @25°C)
- **Percent carbon filler:** >35%
- **Carbon char yield after full bake out:** Approximately 78% (22% porosity)
- **Shelf Life:** As individual components, 2 years at room temperature, up to 3 years with refrigeration.
- **Tensile-Shear Strength:** Up to 1100psi depending on surface preparation and porosity.

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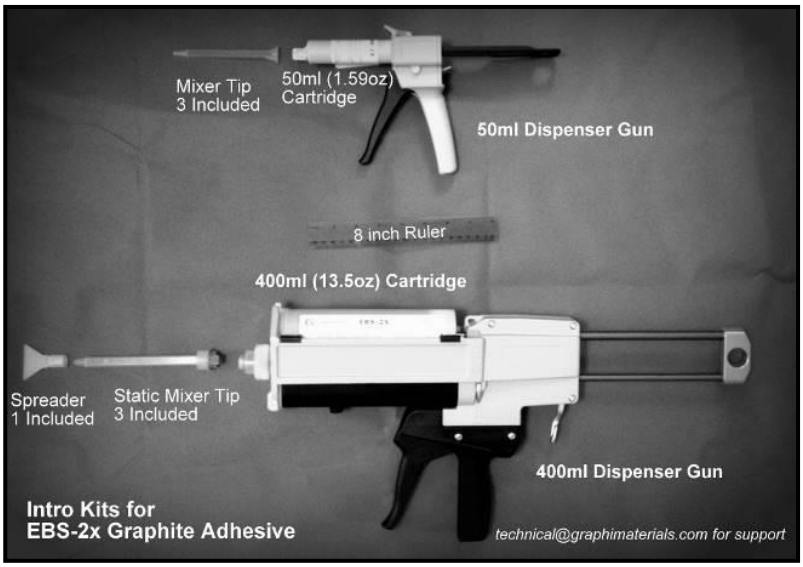
Application

- **Surfaces:** Clean, Dry (Isopropyl alcohol, acetone or MEK may be used to prepare surfaces)
- **Mix ratio:** 4:1 (Part one to part two)
- **Application:** Brush, Adhesive Trowel, Static Mixers (Manual and Pneumatic), Spreader Tip, or automatic Dispenser Systems
- **Clean-up:** MEK, acetone, glycol ether solvents, generally polar solvents clean up best
- **Pot life (25 grams mass):** ~ 2 - 3 hours depending on ambient conditions
- **4 mil Film Application:**
    - **Covers ~ 400 square feet**
    - **Air dry to touch:** ~6 hours depending on ambient conditions
    - **Oven dry to touch:** 30 minutes at 248°F (120 °C)
- **As applied:**
    - **Handling time:** ~6 hours to moderate green strength in lab tests

EBS-2x is available in pint (trial size), quart, gallon, and five-gallon sizes as well as in convenient 50ml (1.69oz.) and 400ml(13.5oz.) static mixer cartridges. Please contact GraphiMaterials for recommendations on Grayco spray systems for high volume applications. We carry all accessories.



Warranty:

The data provided relates only to the product noted above. The information is correct to the best of our knowledge; GraphiMaterials does not guarantee any properties. Because conditions and methods of use of our products are beyond our control, this information should not be used as a substitution for user's own tests to ensure that GraphiMaterials products are safe, effective, and fully satisfactory for the intended end use. GraphiMaterials 's sole warranty is that the product will meet sales specifications in effect at the time of shipment. SDS available at time of purchase.

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