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Technical Bulletin

REDBAC High Temperature (HT) Trowelable Adhesive – K-031

Description:

Redbac HT Trowelable Adhesive is a two-component, V.O.C. and BGE¹ free epoxy system for bonding similar and dissimilar materials designed for use in high temperature applications.

Handling Properties:

CONSISTENCY Smooth, Non-Sag Paste

DENSITY, $lb/gal (g/cm^3)$ 12.8 (1.53)

WORKING TIME* @ 77°F (25°C), min 35 GEL TIME @ 77°F (25°C), min 120

CURE SCHEDULE** 4-6 h @ 77°F (25°C)

+ 2-6 h @ operating temperature

MAXIMUM SERVICE TEMPERATURE, °F (°C) 350 (177)

MIX RATIO, pbw or pbv 4:1

*The working time (the time you have to apply the adhesive before it sets) will vary according to the temperature of the adhesive and the surfaces being bonded.

**Ultimate final cure is obtained by a heated post cure of 2-6 h at 200°-300 °F (93°-149°C) after initial room temperature cure.

Surface Preparation:

Preparation of Concrete: Remove all oil, grease, or contaminated concrete. Chip the surface down to sound aggregate. The concrete must be **dry** and have no standing water. Acid etching surface preparation procedures may result in poor bond and should be avoided. Do not prime or seal concrete surfaces.

Preparation of Metal: Metal surfaces should be sand blasted to a "white metal" condition. If it is impossible to apply K-031 HT Trowelable Adhesive within 24 hours of sand blasting, the surfaces should be primed with Copps K-049 Primer. Do not use porch and deck enamel or red-lead primer.

¹Butyl Glycidyl Ether. The EPA (SARA Title III, section 312) lists BGE as "Toxic" (per ANSI Z129.1) by skin absorption and an immediate health hazard.

Mixing:

Use K-031 in the easy to use, pre-measured kits to avoid proportioning material. If a kit must be divided, accurately measure out the required amount of resin and hardener. DO NOT ATTEMPT TO "EYEBALL" THE AMOUNT NEEDED. Use a scale to weigh out each component or use measuring cups to measure by volume. Adding more or less hardener will only degrade the physical properties.

After the components have been measured out onto a clean, flat mixing board, mix thoroughly with a trowel until the mixture becomes uniform in color (about 2 minutes).

When mixing the largest kits, a mixing paddle and heavy-duty slow speed drill may be used. However the mechanical energy put into the mix by the drill may result in shortened working life and a lessening of the non-sag characteristics of the adhesive.

Incomplete mixing will result in inadequate cure, loss of physical properties, "soft spots", and reduced adhesion.

Uncured HT Trowelable Adhesive can be removed from tools and equipment with non-flammable Copps Enviro Kleen or isopropyl alcohol.

Packaging:

K-031-25: 444 in.³ (7,276 cm³) K-031-70: 1145 in.³ (18,763 cm³)

SAFETY PRECAUTIONS

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD ON, BURN OR TORCH NEAR OR ON, ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED**. Avoid skin or eye contact. Wash skin with soap and water if contact occurs. If eye contact occurs flush with water for 15 minutes and obtain medical attention. Read and understand all cautions on can labels and safety data sheets before using this material.

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