



## Application Instructions

**Coverage:** One gallon of coating will cover 30 to 50 square feet depending upon the porosity of the refractory surface.

**Coating Properties:** The coating is stable indefinitely in the powder form. In the liquid form, the coating may gel and additional water should be added to obtain the proper consistency. During the application, the coating should be stirred occasionally to prevent setting.

**Handling:** Normal precautions during surface preparation and mixing of the coating should include the use of a dust mask to minimize the inhalation of refractory materials. During application, this is not a problem as the material is in liquid form. The material is nonflammable, non-caustic, and nonreactive in both powder and liquid form.

**Surface Preparation:** Surface preparation is not required on new refractory. Older refractory surfaces should be cleaned by wire brush and vacuumed after cleaning to remove all dust particles. Penetration of the coating into the pore structure of the refractory is required to obtain proper bonding. This cannot occur if the pores are filled with dust.

**Application of Inferno Glaze Refractory Coating:** The coating should be mixed and applied so penetration of the coating into the pore structure of the refractory surface is obtained. If proper penetration does not occur, the coating may peel off. The coating can be applied by brush or spray gun. A coarse brush, such as a wallpaper brush, is recommended.

The proper consistency for applying the coating is dependent upon the porosity of the refractory.

- For very porous surfaces, a thin mix should be used (about the consistency of milk) and the proper thickness built up by applying successive coats.
- On extremely porous surfaces, the refractory surface may be dampened prior to application of the coating to assist in proper penetration.
- For very dense surfaces, the coating should be mixed thicker (about the consistency of latex paint). The coating is applied in one step to the proper thickness.
- During application, the brush can be dipped into water and painted onto the coating to smooth it out.
- Sufficient coating - about 1/32 of an inch thick - should be applied to just cover the pore structure of the refractory. If the coating is applied too thickly, it will fall off the refractory surface.
- A slightly thicker covering may be applied to horizontal surfaces. On large surfaces, a squeegee can be used to apply the coating.
- The coating can be applied to "green" refractories as it is permeable to moisture until the glazing temperature is obtained.

**Equipment Start-Up:** The coating should be allowed to air dry prior to equipment start-up, with new equipment start-up at the rate specified by the manufacturer to ensure the refractory is not stressed. For older equipment, the normal start-up procedure should be followed. It is not necessary to immediately start up the equipment after applying the coating, as it is unaffected by exposure to ambient conditions. In metal applications, if possible, the coating should be glazed prior to metal contact. If not, heat the coating to as high a temperature as possible before introducing the molten metal, as the glazing process will be completed by the heat from the molten metal.

**Recoating:** The refractory should be recoated when the "glazed" or "glassy" look is gone. The frequency of coating depends on the type of operation involved. For example, boilers should be recoated once a year while ladles may require coating once a month.