

DTC – RX REFRACTORY COATING

APPLICATION INSTRUCTIONS

COVERAGE : One gallon of coating will cover 30 to 50 square feet depending upon 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 application the coating should be stirred occasionally to prevent settling.**

Handling : Normal precautions during surface preparation and mixing of the coating should include the use of a dust mask to minimize inhalation of refractory materials. During application this is not a problem as the material is in liquid form. The material is **nonflammable, noncaustic, nonreactive** in both the 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 DTC – RX ReFractory Coating : The coating should be mixed and applied so that 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 may be applied by brush or spray gun. A coarse brush such as a wallpaper brush is recommended.

Murphy spray pistols have been used successfully.

The proper consistency for applying the coating is dependent upon the porosity of 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 sprayed with water prior to application of the coating to assist in proper penetration.
- For very dense surfaces the coating should be mixed thicker (about the thickness 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 should be applied to just cover the pore structure of the refractory. This about 1/32 of an inch thick. If the coating is applied too thickly it will fall off the refractory surface.
- A slightly thicker coating may be applied to horizontal surfaces. On larger 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. Start up of new equipment should be at the rate specified by the manufacturer to ensure that 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.

RECOATING : The refractory should be recoated when the “glazed” or “glassy” look is gone. Frequency of coating depends upon the type of operation involved. For example boilers should be coated once a year while ladles may require coating once a month.

Note : In metal applications, the coating should be glazed prior to metal contact if this is possible. If not, heat the coating to as high temperature as possible before introducing the molten metal ; the glazing process will be completed by the heat from the molten metal.

