

INSTALLATION INSTRUCTIONS FOR SPRAYING HARD REFRACTORY AND BRICK WITH INTERNATIONAL TECHNICAL CERAMICS (ITC 100 HT) ENERGY SAVING COATING

SCOPE

This Engineering Standard provides the mixing and installation instructions for the International Technical Ceramics (ITC) hard refractory and brick coating/spraying procedure.

STORAGE

ITC products must be stored on pallets or shelves and be kept between 40⁰ F and 90⁰ F (5⁰ C and 30⁰ C). Warm storage is recommended in extreme cold conditions.

All excess mixed material can be stored in the original airtight ITC containers and re-shelved. The containers must be sealed tightly to prevent material from hardening. Label all premixed material so that additional water is not added and remixed.

EQUIPMENT

The following is a list of equipment that is required for the spraying process:

1. Two, 5 gallon containers to mix the ITC material.
2. ½" drill motor or larger with long mixing attachment.
3. Rubber gloves
4. Graco Tex Spray RTX 1500 spray gun or equivalent.
5. Clean rags.

Note: Most equipment can be purchased at any home improvement store.

MIXING

To mix, simply add ½ container of water to one full container of ITC 100HT. Use only clean potable water with temperatures between 40⁰ F and 85⁰ F (5⁰ C and 30⁰ C). Mixing time needs to be sufficient to produce a uniform sprayable consistency. Do not add additional water. After mixing the product pour the coating through a strainer into another container and press any remaining clumps of unmixed material through the strainer. Remix material. During application, additional mixing may be required to prevent settling.

CAUTION

The following will adversely affect the properties of ITC products.

- Excessive water
- Dirty mixing equipment
- Cement contamination
- Dirty and/or hot water
- Admixtures
- Dirty spraying equipment

INSTALLATION

1. Remove and repair all loose and weakened brick and hard refractory.
2. Remove all debris, dust and grease from interior walls, doors, crown, floor and grooves.
3. Prepare the ITC 100HT for spraying per the mixing instructions by adding ½” container of water to one full container of ITC 100HT.
4. Spray entire surface with ITC 100HT using a minimum of 80 psi of air pressure. DO NOT RUSH and do not leave any areas uncoated. The thickness of the sprayed coating should be approximately 1/16” to 1/8” thick. The distance of the spray nozzle to the surface should be approximately 16”.
5. DO NOT OVER SPRAY. Too thick of an application will cause material to fail prematurely.
6. Allow to dry overnight.

NOTE: Do not use excessive heat to dry the coating during the first 24 hours after installation. Either use fans to move the air inside the furnace or simply leave it to dry overnight. The first firing should be started with low heat at first for approximately six hours. Do not exceed 600°F.

****** After the spraying process is complete, the operation of the furnace MUST BE REPROGRAMED to prevent over firing the furnace.******