

## Castable Refractory Cement

Item 600, 601

- Cures without requiring heat
- May be cast into shapes or a solid bed
- May be used in outdoor firepits
- Easy to use



### Description:

Castable Refractory Cement is a dry-mix material, which when mixed with water, chemically sets as hard as a brick. Properly cast and dried, it withstands 2200°F temperatures. Use it to cast a solid stove bed, repair firebrick, or cast it into custom shapes tailored to the exact needs of the fireplace or stove.

### Performance Characteristics:

- Withstands 2200° F
- Cures as hard as brick
- Has exceptional strength
- May be painted when cured

### Recommended Uses:

Castable Refractory Cement was originally developed for use in blast furnaces. It is ideal for replacing worn-out firebrick in the bottom of woodstoves. It may be cast in firebrick shapes tailored to the exact needs of the firebox. It may be cast as one solid stove bed, or used to fill large holes or cracks in masonry firebox. May be used indoors or outdoors.

### Surface Prep:

**General** - Wear rubber gloves and appropriate eye protection. Protect work area with drop cloth to prevent stains.

**Firebox:** Clean all dirt, rust and foreign matter away from the surface to be cemented.

**Casting:** Use of a release agent is recommended to facilitate the release of the brick from the mold. Pam™ may be used.

### Application:

Mix the dry contents of the container thoroughly. Put measured amount of dry mix into a plastic bucket or container. Add one quart clean, cool, water per 12.5 lbs. dry mix. It sets up fast, so only mix an amount that can be used within 20-30 minutes after adding water. Mix thoroughly taking care not to lose any water which contains the binder.

While wearing gloves, take a handful of the material and form it into a ball. Toss the ball an inch into the air a dozen times. If it breaks apart, it is too dry. If it slumps or sags down through the fingers, it is too wet. Excess water lowers the strength of the bond and increases time needed to set.

### **Firebox**

Dampen work area lightly with water. Cast into place and pat it to remove air pockets, but do not smooth to a slick finish as this inhibits water from escaping.

### **Casting**

The form or mold must be waterproof to prevent absorption of water from the mixture, as water is needed for the hardening process. Apply release agent such as Pam to the form or mold. Pour mixture into the mold and smooth by patting thoroughly to remove air pockets. Do not smooth to a slick finish as this inhibits escaping water.

**Setting:** Let set at 60°F or above for 24 hours. Do not permit surface to dry out during this period.

**Caution:** Dried castable cement still contains chemically combined water that is given off as steam at higher temperatures. Therefore, heat slowly when first starting fire.

**Coverage:**

One 12.5 lb gallon container mixed with one quart of water will cast a 12" x 12" x 1 1/2" square.

**Clean up:**

Clean up excess material with warm water. Spills on glass or enamel surfaces must be wiped up with warm water immediately.

**Typical Physical Properties:**

|                     |  |
|---------------------|--|
| Service temperature | 2200°F   |
| Weight/Gallon       | 12.5 lbs.  |
| Consistency         | Dry  |
| Flashpoint          | N/A  |
| Pot Time            | 20-30 minutes  |
| Dry Time            | 24 hours, depending upon thickness, humidity and air temperature |
| Color               | light brown  |
| Storage/Handling    | Keep cover closed tightly<br>Store in a dry place                |

**Limitations:**

Not for use on metal surfaces. Do not add any colorants. Dried castable cement contains some chemically combined water that is given off as steam at high temperatures; therefore, apply heat gradually when first starting the fire.

**Warranty and Limited Remedy:**

This product will be free from defects in material and manufacture for a period of eighteen (18) months from date of manufacture. Rutland Fire Clay Company makes no other warranties including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. User is responsible for determining whether the Rutland Fire Clay Company product is fit for a particular purpose and suitable for user's application. If this Rutland Fire Clay Company product is defective within the warranty period stated above, your exclusive remedy and Rutland Fire Clay Company's sole obligation shall be, at Rutland Fire Clay Company's option, to replace the Rutland Fire Clay Company product or refund the purchase price of the Rutland Fire Clay Company product.

**Limitation of Liability:**

Except where prohibited by law, Rutland Fire Clay Company will not be liable for any loss or damage arising from this Rutland Fire Clay Company product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

**CAUTIONS:**

**Contains Portland Cement. Product is alkaline. Avoid contact with eyes and prolonged contact with skin. Wear safety glasses and rubber gloves. In case of contact, flush with plenty of water. For eyes, flush with water for at least 15 minutes. Get immediate medical attention. Avoid breathing dust. Use NIOSH approved dust respirator.**

**KEEP OUT OF REACH OF CHILDREN  
EYE AND SKIN IRRITANT  
HARMFUL IF SWALLOWED**