



MT. SAVAGE SPECIALTY REFRATORIES COMPANY

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INSTALLING REFRACTORY CASTABLES GENERAL RECOMMENDATIONS

STORAGE

The product must be kept dry until use. Keep shrink wrapping intact. Avoid storage in excessively humid areas. The shelf life of cement bonded refractory castables is 12 months when stored under the proper conditions. The product should be maintained at 40°F minimum to 90°F maximum for use. Several days may be required to cool or warm material stored in excessively hot or cold conditions.

ANCHORS

Metallic or ceramic refractory anchors are required for walls and arches. Many configurations and materials are available. Consult with MT. SAVAGE for specific recommendations.

FORMS

All form work that will come into contact with castable should be thoroughly coated with form oil, grease, plastic, tar paper or other impermeable coating to prevent water absorption and sticking. Leave forms in place for 24 hours after completion of casting. Remember to support the forms as necessary to allow for vibrating the material into place and the weight and head pressure of the cast material.

TEMPERATURE

Air, water and material temperatures must be between 40°F and 90°F. The completed lining must be kept above 40°F for a minimum of 24 hours.

NOTE: Linings cast under very cold conditions are more likely to experience explosive spalling due to the sudden release of steam upon heat-up.

MIXING

Use only clean, cool, drinking quality water. Use the minimum amount of water necessary for placement. The amount of water specified on the bag is approximate. Consult MT. SAVAGE for specific recommendations. Mix the castable and water in a clean paddle mixer for 2 to 5 minutes depending on the density and amount of the material and the efficiency of the mixer. Contamination – especially from Portland cement – may radically alter the setting properties.

NOTE: Excess water will lower the strength of the product and may cause problems during dry-out.

INSTALLING REFRACTORY CASTABLES

GENERAL RECOMMENDATIONS (Continued)

PLACEMENT

Placement by vibration is recommended. Placement should be done at a rate and in a manner that ensures that the material is properly consolidated before additional material is placed over it. When making multiple pours, make sure that vibration or other placement methods do not disturb material which has begun to set. This may weaken the product and may cause cracks.

CURING

In order to allow the bond to develop, keep the material damp for 24 hours by applying a curing compound or a fine water spray as needed or by covering with plastic. On heat-up avoid direct flame impingement and heat slowly to avoid steam spalling. The specific dry-out and heat-up requirements will be a function of the material, the geometry of the installation and the available equipment. Consult with MT. SAVAGE for specific recommendations.

GUN APPLICATION

Application of castables by gunning is not recommended. Most castables sold by MT. SAVAGE can be purchased in a "Gun Mix" version. This will reduce rebound and slumping and improve density control and installation rates. All gun mixes should be pre-dampened in a mixer or screw pre-dampener to reduce dusting, reduce rebound and to improve installation efficiency. Pre-dampening water will normally be 2 to 5 percent for dense castables. Pre-dampening water will vary considerably for insulating castables depending on the density.

NOTE: Gun mixes should not be installed by casting.

SPECIAL PRODUCTS

Products identified as ULTRA-TEK, Q-TEK, and COROTEK have different installation requirements. Consult MT. SAVAGE for the specific requirements for these products.