

The mixing of Xertech refractory castable products is critical to the lining performance, and particular attention must be paid to the following procedures.

### STORAGE

Xertech Castable Products are supplied as a single component containing aggregate and binder. These castables are packaged in moisture-resistant bags; however, they must be stored on pallets in a dry location to prevent increased aging rates.

Due to pressure and settlement in storage, it is possible for the materials to become compacted. These lumps can be broken down by hand. However, hard lumps indicate some setting has occurred due to moisture. Do not use partially reacted castable.

### MIXING

A paddle or high intensity pan type mixer must be used. Drum mixers are not recommended for mixing Xertech Castables. The mixer size should be such that each batch of material is installed within 30 minutes after mixing.

All mixing equipment must be clean of contaminants, such as Portland cement, which can adversely affect the setting rate and physical characteristics of Xertech Castables.

For best results, dry material, water, and ambient temperatures should be held between 50°F and 80°F during mixing and curing.

Installers should check bag weights, then calculate and measure water requirements before mixing. Use only clean, potable water with a pH between 6 and 8. Refer to datasheets provided for respective water requirements.

The mixer operator should add the dry Xertech Castable to the mixer and start the mixer on a low speed. When mixing the first batch, the mixer operator should begin by adding the lowest recommended water amount and wet mix for a minimum of four minutes. If the material appears too dry or does not flow properly, add water in 0.25% increments, staying within the recommended water range for the product. Include another minute of mixing after each addition. Once the desired consistency is reached, note the water level as a starting point for subsequent batches.

When the proper water content is reached, the surface will look slick. Best results are obtained when installers use just enough water to allow the castable to flow properly. Water additions beyond the levels specified will adversely affect the physical properties of the castable.

### **INSTALLATION**

Vibrators should have variable controls. Excessive vibration may cause a rolling of the castable that will lead to increase porosity and air voids. Do not attempt to produce a smooth surface with high vibration or troweling. This will cause the fines to rise and create segregation within the lining.

### **GENERAL**

1. Any porous backup material should be waterproofed to prevent absorption of water from the Xertech Castable.
2. The surface against which the Xertech Castable is to be applied must be cleaned of all oil, grease, rust, loose mill scale and any foreign matter that might contaminate the castable.
3. Xertech Castables must be protected from freezing from the time of placement until the full thickness has been dried to a minimum 250°F (120°C). Castable linings that freeze prior to the removal of the free moisture can crack.
4. All metallic anchoring should be coated to allow for expansion of the metal.
5. Forms should not be removed until the material has cured for a minimum of 18 hours.

### **DISCLAIMER**

Xertech Specialties assumes no liability for the use of this information and provides no warranty expressed or otherwise for its accuracy. Guidelines provided herein are given and accepted at Buyer's own risk.