

PRODUCT

**ULTRA-TEK 70 NC**

**NO CEMENT, SELF FLOWING CASTABLE,  
PUMP MIX, SHOTCRETE**

**REFRACTORIES**

**TECHNICAL DATA**

PHYSICAL PROPERTIES

|  |                 |
|--|-----------------|
| Maximum Service Temperature            | 3200°F          |
| Lbs. Required Dry Mix per Cu. Ft.      | 163 lbs.        |
| % Water by Weight Required for Casting | 5 - 6.5% *      |
| Bulk Density After Drying              | 165 lbs./cu.ft. |

Modulus of Rupture

|              |                 |
|--------------|-----------------|
| After Drying | 1500 - 2000 psi |
| At 1500°F    | 800 - 1200 psi  |
| At 2550°F    | 700 - 1100 psi  |
| At 2750°F    | 400 - 600 psi   |

|  |                  |
|--|------------------|
| <u>Cold Crushing Strength After Drying</u> | 9500 - 14000 psi |
|--|------------------|

Permanent Linear Change

|              |               |
|--------------|---------------|
| After 1500°F | Negligible    |
| After 2550°F | 0.0 to +0.4%  |
| After 2750°F | +0.5 to +1.5% |

CHEMICAL ANALYSIS

|            |                                   |       |
|------------|-----------------------------------|-------|
| Silica     | [SiO <sub>2</sub> ]               | 26.0% |
| Alumina    | [Al <sub>2</sub> O <sub>3</sub> ] | 70.3% |
| Iron Oxide | [Fe <sub>2</sub> O <sub>3</sub> ] | 1.2%  |
| Lime       | [CaO]                             | 0.0%  |
| Titania    | [TiO <sub>2</sub> ]               | 1.6%  |

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.  
All data based on self flow placement, higher strengths can be obtained with less water and vibration casting.

\* SEE REVERSE SIDE FOR DETAILS

3050



**MT. SAVAGE**

**SPECIALTY REFRACTORIES COMPANY • Pittsburgh, Pa. 15127 •**

Mt. Savage ULTRA-TEK, ULTRA-TEK UL and ULTRA-TEK NC Castables are formulated for vibration casting, self-flow casting, pumping, and shotcrete application. The water ranges on the data sheets indicate lower amounts for vibration casting and maximum strengths and higher amounts for pumping and shotcrete installation. Specify your application for additional information and to obtain ULTRA-SET Accelerator for shotcrete installation. Shotcrete installations should be performed by qualified contractors only.

“UL” or Ultra Low Cements have higher intermediate temperature strengths and “NC” or No Cements have increased high temperature strengths.

All data is based on averages of laboratory testing and may vary under field installation conditions.

All Low Cement materials require careful dry out. Please consult your Mt. Savage representative for details.

Low Cement Castables setting times are temperature sensitive and will require longer setting times in cooler conditions under 70°F. Preferred mixing temperatures are between 70°F and 90°F. Casting of low cement materials below 50°F is not recommended.

Low Cement Castables have an effective shelf life of approximately 6 months. Older materials will have significantly increased set times.