

**DESCRIPTION:** Wet, air-setting, medium duty 2700°F refractory mortar  
[formulated to be used with SMITHFIELD UNBRANDED MEDIUM DUTY FIREBRICK]

**SIZE:** 15 lb. plastic pail [4/case] – Inventory #2A1025  
50 lb. plastic pail – Inventory #2A1050  
10 oz. caulk tube [12/case] – Inventory #2A1120



### TYPICAL TEST DATA

#### CHEMICAL ANALYSIS [Wt. % Calcined Basis]

Silica [SiO <sub>2</sub> ]	92.14
Aluminum Oxide [Al <sub>2</sub> O <sub>3</sub> ]	4.41
Sodium Oxide [Na <sub>2</sub> O]	2.48
Titanium Dioxide [TiO <sub>2</sub> ]	0.42
Potassium Oxide [K <sub>2</sub> O]	0.22
Iron Oxide [Fe <sub>2</sub> O <sub>3</sub> ]	0.21
Magnesium Oxide [MgO]	0.06
Calcium Oxide [CaO]	0.06
Total	100.0
Loss on Ignition, 1000°C	4.73

#### PHYSICAL PROPERTIES

##### ASTM C-24

P.C.E.	29
Service Temperature [max. recommended], °F	2700
Temperature Equivalent [melting], °F	3018

##### ASTM C-198, Bonding Strength, psi

After 230°F	207
After 2730°F	584

##### ASTM C-199 – Medium Duty, Pier Test at 2730°F

No flow from joints. No cracks or shrinkage.
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Air-Set Refractory Mortar is accepted and approved by all national building codes including:

- The International Code Council
- The International Residential Building Code
- The National Fire Protection Association

#### APPLICATION

Material is ready mixed; surface liquid in pails can be thoroughly mixed in or poured off for desired consistency.

If mortar is frozen, allow pail to thaw at room temperature.

Mortar should be tightly capped as soon as possible, as it will begin setting up once exposed to air.

When laying up firebrick, we recommend a 1/16" to 1/8" joint. Approximately 35-40 lbs. of mortar will lay up one hundred 9x4½x2½" Straights.

Typical set time is between 48 and 72 hours; however, set time can be as long as a few weeks in cool temperatures with high humidity levels. These conditions could cause the surface of the mortar to harden while the mortar within the joint will stay workable. Application to damp firebrick will also slow the set time. Once all moisture has evaporated, the mortar will finish setting up. Shelf life is 6-12 months, if too stiff for application add water and mix; if dried in container discard.

Mortar must be completely dry before applying heat.

#### CAUTION

DO NOT use in outside installations. This mortar is water soluble and will eventually erode if exposed to rain or snow melt. Store sealed drums indoors in ambient conditions.

DO NOT use as filler for voids. Mortar will experience shrinkage and cracking if applied thicker than ¼".

*If your application requires either of the above conditions, please consider using ALSEY FLUE-SET Non-Water Soluble Refractory Mortar.*

SDS AVAILABLE UPON REQUEST

The above properties represent average results of typical data produced from standard ASTM test methods on a 9" straight. Specifications should not be considered guaranteed. Alsey Refractories Company makes every effort to ensure consistency in our products; however, properties may vary due to standard statistical manufacturing deviations. Alsey Refractories Company reserves the right to modify this data at any time without prior notice.



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