

# ALUMINITE



## REFRACTORY CEMENT

### DESCRIPTION:

**Aluminite** is a refractory cement specifically designed for the production of heat-resistant, insulating mortars and concretes. **Aluminite** is made up of calcium aluminates and aluminium rich minerals, both triturerated to micron size. By raising its service temperature, its components are sintered and ceramised, which increases its melting point and mechanical strength. **Aluminite** hardens quickly, which contributes to its rapid demolding and/or application.

### CEMENT FEATURES:

Chemical characteristics:

| Standard value                 |       | Standard value   |       | Standard value  |       |
|--------------------------------|-------|------------------|-------|-----------------|-------|
| Al <sub>2</sub> O <sub>3</sub> | 42,9% | FeO              | 4,5%  | S <sup>2-</sup> | 0,03% |
| CaO                            | 36,1% | SiO <sub>2</sub> | 2,9%  | SO <sub>3</sub> | 0,10% |
| Fe <sub>2</sub> O <sub>3</sub> | 11,4% | Cl <sup>-</sup>  | 0,01% | Alkalies        | 0,07% |

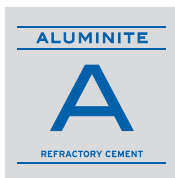
Mechanical strengths (EN 196-1 modified by EN 14647) setting time (EN 196-3) and Blaine specific surface area (EN 196-6).

| Standard value                                     | Standard value                        |
|--|---------------------------------------|
| Compression strength 6 h (MPa): 47,7               | Compression strength 24 h (MPa): 65,2 |
| Initial setting time (min): 145                    | Final setting time (min): 165         |
| Blaine specific surface (cm <sup>2</sup> /g): 3270 |                                       |

| Additional characteristics                                  |  |
|---|--|
| Primary mineral component: CaAl <sub>2</sub> O <sub>4</sub> | Melting temperature: 1360 °C               |
| Laser granulometry D(v,0.9) (µm) ) less than 90 µm          |  |
| Apparent gravity (g/cm <sup>3</sup> ): 1,2                  | Specific gravity (g/cm <sup>3</sup> ): 3,2 |

This product does not require the addition of a chromium (VI) reducing agent.





## DISPATCH AND STORAGE:

- Available in bigbags and 25 kg bags.
- The bags must be stored in ventilated, dry conditions, protected from air and ground moisture.

---

## RECOMMENDED FOR USE IN:

Heat-resistant, insulating mortars and concrete, including those resistant to thermal shock (with appropriate aggregates). Fields of use include:

- Iron and steel industry
- Ceramics
- Petrochemical industry
- Incinerators
- Aluminium industry
- Chimneys and barbecues

---

## NOT SUITABLE FOR:

Non-refractory, non-insulating applications.

---

## PRECAUTIONS FOR USE:

- Given the high reactivity of this cement, it is very important to exercise extreme care in the curing process, especially in hot, dry and windy atmospheres. Intensive curing is recommended three hours after application and over the following 24 hours.
- The first temperature ramp rate should be gradual and appropriate in order to avoid fissures caused by the violent discharge of free and combined water. A ramp rate of 50°C per hour from room temperature up to 600°C is recommended and should be maintained for two hours. Finally, the temperature can be raised to the required level. Once the **Aluminite** is fired, subsequent temperature ramp rates are unaffected.



SAT

TECHNICAL ATTENTION SERVICE  
+34 93 680 60 30  
sat@cmi.cemolins.es



UNE-014-00 9001

Please contact us for further information.