

## PRODUCT DATA SHEET

# Royal Set Air Setting Cement

Air-setting refractory cement | Multiple grades for different service requirements

**TECHNICAL SPECIFICATIONS**

| Property                       | Published value               |
|--------------------------------|-------------------------------|
| Bond                           | Air-setting                   |
| Form                           | Powder                        |
| Al <sub>2</sub> O <sub>3</sub> | 38-90% (grade dependent)      |
| SiO <sub>2</sub>               | 2-53% (grade dependent)       |
| Service Temp                   | 1450-1800°C (grade dependent) |
| Shelf Life                     | 24 months                     |
| Country of Origin              | India                         |

## SAFETY DATA SHEET - INDUSTRIAL USE

### 1. IDENTIFICATION

|                    |                                              |
|--------------------|----------------------------------------------|
| Product identifier | Royal Set Air Setting Cement                 |
| Product type       | Powdered air-setting refractory cement       |
| Recommended use    | Air-setting refractory cement range          |
| Restrictions       | Industrial/professional refractory use only. |
| Supplier           | Royal Refractories, Wankaner, Gujarat, India |
| Emergency contact  | +91-8451999533                               |

### 2. HAZARD IDENTIFICATION

|                |                                                                                                                                                                     |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Classification | Industrial refractory mixture. Airborne dust can irritate eyes and the respiratory tract.                                                                           |
| Primary hazard | Bag opening, mixing, installation and cleanup can generate respirable mineral dust; wet mix may irritate skin and eyes.                                             |
| Health effects | Dust may irritate eyes, skin and airways. Repeated exposure to respirable crystalline silica, if present in generated dust, can cause serious chronic lung disease. |
| Precautions    | Open bags carefully, use local exhaust, add material to water without raising dust, and avoid prolonged wet-skin contact.                                           |
| Other hazards  | Used refractory may retain process contaminants; assess before removal, reuse or disposal.                                                                          |

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

|                     |                                                                                        |
|---------------------|----------------------------------------------------------------------------------------|
| Material            | Proprietary refractory formulation.                                                    |
| Composition         | Specific chemical identities and concentrations are confidential business information. |
| Further information | Contact Royal Refractories for confidential formulation details where required.        |

### 4. FIRST-AID MEASURES

|            |                                                                                                        |
|------------|--------------------------------------------------------------------------------------------------------|
| Inhalation | Move to fresh air. Obtain medical advice if coughing, breathing difficulty or irritation persists.     |
| Skin       | Wash with soap and water. Remove contaminated clothing.                                                |
| Eyes       | Rinse cautiously with clean water for at least 15 minutes. Seek medical advice if irritation persists. |
| Ingestion  | Rinse mouth. Do not induce vomiting. Obtain medical advice if unwell.                                  |

### 5. FIRE-FIGHTING MEASURES

|                     |                                                                       |
|---------------------|-----------------------------------------------------------------------|
| Flammability        | Inorganic refractory material; not expected to burn.                  |
| Extinguishing media | Use media suitable for the surrounding fire.                          |
| Specific hazards    | No hazardous combustion products expected from the refractory itself. |

## 6. ACCIDENTAL RELEASE MEASURES

|                      |                                                                                     |
|----------------------|-------------------------------------------------------------------------------------|
| Personal precautions | Avoid airborne dust and direct contact. Ventilate the area.                         |
| Cleanup              | Use HEPA-filtered vacuuming or wet cleanup. Do not dry sweep or use compressed air. |
| Environment          | Prevent bulk material and fine dust from entering drains or waterways.              |

## 7. HANDLING AND STORAGE

|          |                                                                                                                           |
|----------|---------------------------------------------------------------------------------------------------------------------------|
| Handling | Open bags carefully, use local exhaust, add material to water without raising dust, and avoid prolonged wet-skin contact. |
| Storage  | Store dry, covered and stable. Protect packaging from damage and moisture.                                                |
| Hygiene  | Wash after handling. Do not eat, drink or smoke in dusty work areas.                                                      |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

|                      |                                                                                                                                        |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Engineering controls | Use wet methods or local exhaust. Wear a properly selected, fit-tested particulate respirator where dust is not adequately controlled. |
| Eyes                 | Safety goggles; use sealed goggles for dusty mixing or machining.                                                                      |
| Hands / skin         | Work gloves and protective clothing appropriate to the task.                                                                           |
| Exposure assessment  | Measure workplace respirable dust and identified crystalline silica; comply with applicable occupational limits.                       |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                    |                                                                                          |
|--------------------|------------------------------------------------------------------------------------------|
| Appearance         | Dry graded refractory powder and aggregate mixture.                                      |
| Odour              | No characteristic odour expected.                                                        |
| Pack / unit weight | See product label.                                                                       |
| Water solubility   | Mineral fraction is expected to be insoluble; binder behavior depends on product family. |
| Other properties   | Liquid/gas properties such as vapour pressure and flash point are not applicable.        |

## 10. STABILITY AND REACTIVITY

|               |                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------|
| Stability     | Stable under recommended dry storage and intended refractory use.                                          |
| Avoid         | Moisture before use where applicable, incompatible process contamination and uncontrolled dust generation. |
| Decomposition | No hazardous decomposition expected from the refractory mineral system under intended use.                 |

## 11. TOXICOLOGICAL INFORMATION

|                 |                                                                                                                                |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------|
| Routes          | Inhalation of processing dust; eye and skin contact.                                                                           |
| Acute effects   | Mechanical irritation from dust; mixed silicate/cementitious products may irritate skin and eyes.                              |
| Chronic effects | Repeated inhalation of respirable crystalline silica, if present, may cause silicosis, lung cancer and other systemic effects. |
| Product data    | No product-specific toxicological test data are available.                                                                     |

## 12. ECOLOGICAL INFORMATION

|                 |                                                          |
|-----------------|----------------------------------------------------------|
| Ecotoxicity     | Avoid uncontrolled environmental release.                |
| Persistence     | Inorganic mineral material is not readily biodegradable. |
| Bioaccumulation | Not expected for an insoluble mineral refractory.        |

## 13. DISPOSAL CONSIDERATIONS

|               |                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------|
| Waste         | Reuse or recycle clean refractory where feasible. Dispose under local rules and contamination status. |
| Used material | Characterize used refractory for absorbed process contaminants before disposal.                       |
| Packaging     | Recycle clean packaging where permitted.                                                              |

## 14. TRANSPORT INFORMATION

|                   |                                                              |
|-------------------|--------------------------------------------------------------|
| UN number / class | Not assigned.                                                |
| Packing group     | Not assigned.                                                |
| Precautions       | Secure against package damage, breakage and dust generation. |

## 15. REGULATORY INFORMATION

|           |                                                          |
|-----------|----------------------------------------------------------|
| Framework | Prepared in the 16-section GHS format.                   |
| Review    | Follow applicable local requirements for industrial use. |

## 16. OTHER INFORMATION

|                  |                                                                                                                  |
|------------------|------------------------------------------------------------------------------------------------------------------|
| Issue / revision | 30 October 2026 / Revision 01                                                                                    |
| Technical source | Royal Refractories product specifications.                                                                       |
| Safety basis     | Product-family physical form, intended use, and conservative mineral-dust controls.                              |
| References       | UNECE GHS; OSHA respirable crystalline silica guidance.                                                          |
| Status           | Industrial safety information must be read with site-specific risk assessment and applicable local requirements. |