RICHO Refractory
FIRE BRICK & INSULATING BRICK PRODUCT

# TECHNICAL DATA SHEET

## RCH 60 LC | LOW CEMENT DENSE REFRACTORY CASTABLE

| PRODUCT CODE | PRODUCT TYPE | REFRACTORINESS |
|---|---|---|
| RCH 60 LC | Low Cement Castable | 1550 °C |

## 1. PRODUCT DESCRIPTION

RCH 60 LC is a bauxite-based low cement castable with a reduced calcium oxide content, formulated for continuous service up to 1500 °C. The low cement matrix gives markedly higher cold crushing strength and lower porosity than conventional dense castables, together with good resistance to abrasion and thermal load. The product is installed by casting with vibration and is not a self-flow castable.

## 2. CHEMICAL ANALYSIS (TYPICAL)

| Chemical Composition | Typical Value (%) |
|---|---|
| **$Al_2O_3$ — Alumina** | 65 - 70 |
| **$SiO_2$ — Silica** | 23 - 27 |
| **$Fe_2O_3$ — Iron Oxide** | 1 - 2 |
| **CaO — Calcium Oxide** | 1.8 - 2.3 |
| **$TiO_2$ — Titanium Dioxide** | ≤ 3.0 |

*Indicative chemical values for product reference; not contractual or batch-specific limits.*

## 3. PHYSICAL PROPERTIES (TYPICAL)

| Property | Test Condition | Typical Value |
|---|---|---|
| **Refractoriness** | — | 1550 °C |
| **Recommended Service Temperature** | — | 1500 °C * |
| **Classification** | — | Low Cement Dense Castable |
| **Maximum Grain Size** | — | 5 mm |
| **Recommended Water Addition** | — | 6 - 7 % |
| **Bulk Density** | 110 °C x 24 h | 2.50 - 2.60 g/cm³ |
| **Material Required (approx.)** | — | 2,550 kg/m³ |
| **Cold Crushing Strength (CCS)** | 110 °C x 24 h | 380 - 460 kgf/cm² |
| **Cold Crushing Strength (CCS)** | 815 °C x 5 h | 430 - 520 kgf/cm² |
| **Modulus of Rupture (MOR)** | 110 °C x 24 h | 85 - 115 kgf/cm² |
| **Modulus of Rupture (MOR)** | 815 °C x 5 h | 95 - 125 kgf/cm² |


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** Recommended service temperature is the temperature for continuous service and is application-dependent. Actual safe operating temperature can be lower depending on load, atmosphere, thermal cycling, abrasion, chemical attack and lining design. Refractoriness is the temperature at which the material begins to soften and is not a service rating.*

*CCS and MOR are cold-strength properties measured on laboratory specimens (CCS 5 x 5 x 5 cm; MOR 23 x 5 x 5 cm, span 20 cm) and are not a measure of strength at operating temperature.*

## 4. INSTALLATION GUIDELINE

- Add clean, cool water at 6 - 7 % of the dry material weight. Do not exceed the recommended dosage.
- Mix thoroughly using a forced-action pan or paddle mixer until a uniform consistency is obtained. Gravity (drum) mixers are not recommended.
- Place into the formwork in layers and compact with a vibrator until the surface is closed and entrapped air has been released.
- Keep the surface moist and cure for a minimum of 24 hours before stripping the formwork.
- Dry out gradually following a controlled heating schedule, holding at 110 - 150 °C until moisture release stops, prior to first firing.

## 5. TYPICAL APPLICATIONS

| | |
|---|---|
| • Furnace lining | • Incinerator hot face |
| • Burner block | • Abrasion-exposed areas |
| • Kiln lining | |

## 6. PACKAGING & STORAGE

| Item | Description |
|---|---|
| **Packaging** | 25 kg per bag (moisture-resistant bag with inner liner) |
| **Storage Life** | 6 months from date of production |
| **Storage Condition** | Store in a dry, covered area, clear of the ground and protected from moisture |

## DISCLAIMER

The values shown in this data sheet are typical properties obtained under controlled laboratory and production conditions and are provided for reference only. They do not constitute a specification or a guarantee of performance. Actual results may vary depending on installation practice, water addition, curing, dry-out schedule, furnace atmosphere, and service conditions. For assistance with product selection or installation, please contact CV Richo Refractory.


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