TNCR supplies full lines of bricks and monolithic refractories for dry process cement kilns with advanced chrome-free and environment-friendly technologies. Our nose ring, damper and burner pipe refractories are state-of-the-art with leading edge refractory technologies widely used in USA and European cement industry.

### List of Key Products for the Cement Industry

**Pre-heater and Pre-calciner**:

- **Working Linings**:
  - **Bricks**:
    - K-50, K-50A, K-60, MULL 80;
  - **Monolithic**:
    - CAST 60, CAST 65S & CAST 70S, PLASTIC 80P & PLASTIC 85P;

- **Insulation Linings**:
  - **Bricks**
    - ASTM Mullite Insulating Fire Bricks: T-23LI and T-26LT;
  - **Light-Weight Castables**
    - INSULITE 2310LI, INSULITE 2315LI, INSULITE 2208LI and INSULITE 2210LI.

**Rotary Kiln Systems**:

- **Inlet Area**:
  - K-50, K-70, SDNT-42;
- **Pre-Calcining Zone**:
  - K-50, K60, K-70, K-80, MULL 60 and QNT-16;
- **Upper Transition Zone**
  - MSP-XE, MSP-XD, MSP-XC, MSP-BD and MSP-BK;
- **Burning Zone (Chrome-free)**
  - MSP-NT, MSP-NH;
- **Lower Transition Zone**
  - MSP-XE, MSP-XD, MSP-XC, MSP-BD and MSP-BK;
- **Discharge (Nose Ring)**
  - K-70, CM CAST (Pre-cast), PLASTIC 85P;
- **Kiln Burner Pipe**
  - CAST 85S, CAST 90S, CAST AZS;
- **Damper**
  - CM CAST (Pre-cast);

**Cooler**

- CAST 50, CAST 55, CAST 65, CM CAST (Pre-cast).

Specifications and technical data are available on request.
Insulating Fire Bricks — IFB

Light weight Insulating Fire Bricks (IFB) is an ideal material for insulation and heat efficiency improvement in Pre-heaters and Pre-calciners with its features of:

- Low Heat Capacity and Conductivity;
- High Refractoriness;
- Good Performance under Reducing Conditions.

K Series — High Alumina Bricks

Our high alumina family products are ideal for the rotary cement kiln zones before the Upper Transition Zone to the Inlet Area with following features:

- Excellent alkali resistance;
- High abrasion resistance;
- Positive PLC which will tight the brick ring after the rotary is in operation.

CM CAST —

Steel Fibre Reinforced Free Flowing Pre-fired Low Cement Castable

With excellent:

- Thermal Shock Resistance;
- Impact Resistance;
- Compressive Strength;
- Refractoriness.

CM CAST brings innovative and new solution to Dampers, Nose Ring and other areas with high temperature and high mechanical abuse in rotary kilns.

This innovative product has substantially extended the service life of Damper and Nose Ring areas in rotary cement kiln systems.

MSP Series — Premium Magnesia Spinel Bricks

MSP Series are products that made of:

- High Grade Large Crystal Magnesite;
- MgO-Al₂O₃ Spinels;
- Functional Additives.

Combining the unique characteristics of MgO-Al₂O₃ spinels and functions of special additives, TNCR designs and manufactures MSP series products (Magnesia Alumina Spinel) to meet the challenges of different areas in a rotary cement kiln.

MSP product family has the following features:

- MSP-NT and MSP-HT: Designed for good and stable coating in Burning Zone;
- MSP-XE, MSP-XD, MSP-XC, MSP-BD and MSP-BK: Excellent choices for Upper and Lower Transition Zones, which demonstrate excellent thermal, volumetric, chemical and abrasion properties;
- All MSP products have excellent thermal shock resistance;
- Most importantly, they are TOTALLY CHROME FREE AND GOOD FOR THE ENVIRONMENT.

<table>
<thead>
<tr>
<th>MSP in Rotary Kiln</th>
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<tbody>
<tr>
<td>MSP-NT</td>
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<tr>
<td>MSP-XD</td>
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<td>MSP-XC</td>
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Visit Our Website: www.tncr.com

Phone: +86-22-85589019
Fax: +86-22-85589023
Email: sales@tncrltd.com
### Key Products for Cement Industry

#### Product Data

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<tr>
<th>Brand</th>
<th>K Series High Alumina Brick</th>
<th>Mullite Based High Alumina Brick</th>
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<tr>
<td></td>
<td>K 50</td>
<td>K 60</td>
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<tr>
<td><strong>Physical Properties</strong></td>
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<td>B.D. (g/cm³)</td>
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<td>55</td>
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<td>SiO₂</td>
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<tr>
<th>Brand</th>
<th>MSP-N</th>
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Data provided here are randomly collected from production. They are provided as a technical reference, updated at times and thus should not be taken as specifications or criteria for order placement. Please contact our Customer Service Center for further information.