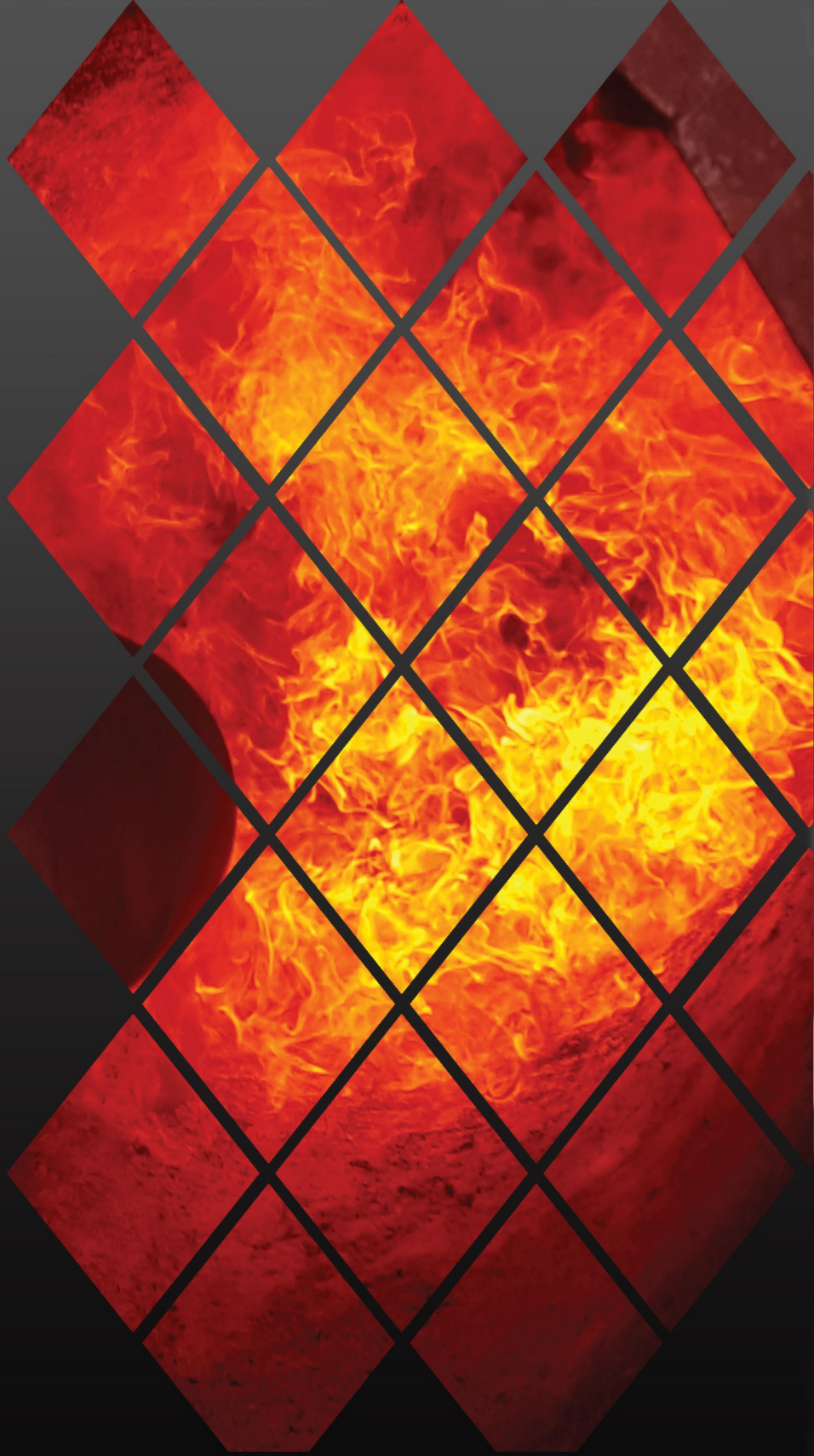
ATIQ



Steel Industry

# Atiq Refractories Company


## Introduction

**Atiq refractories company** has gained its position in the refractory industry of the country due to its valuable and successful experiences over the past 30 years in the refractory field, highly skilled staff, and conformity to the highest standard quality requirements. Our company, located in Razi Industrial Town, Isfahan province, produces all kinds of refractory materials used in steel, cement, oil, petrochemical, and other industries by taking advantage of the knowledge and scientific perspective of our qualified technicians and experts.

## Objectives

1- Supplying the demands of special refractory materials in order to export globally.

2- A specific goal to meet the growing worldwide demand and therefore hold our position at the forefront of the refractory industry.

3- Establishing a competitive environment with prominent companies in the refractory industry.

4- Study and research to obtain the know-how of new refractory products according to the ever-growing demands of our customers.

5- Enhancing the company's engineering capability to improve the quality of products continuously.

6- Development and completion plan of production lines to manufacture special products.

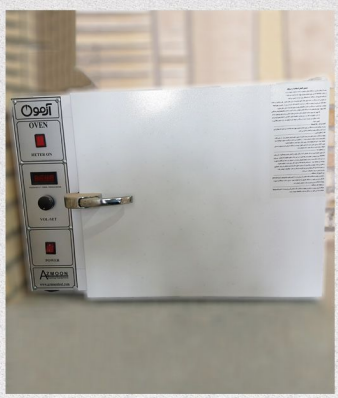
## Research and Development Center

The research and development center of Atiq refractories Company takes advantage of well-educated and expert research staff and a well-equipped refractory laboratory to design, consult and develop new products and processes to meet the demand and expectations of customers in various industries.

As an innovative part of the organization, this center is primarily responsible for:

- Developing new products to complete the company's product portfolio
- Providing new formulations to improve product quality and properties while reducing costs
- Interacting constructively with research and academic institutions to exchange scientific and technical information and promote innovative ideas
- Monitoring the quality control unit (QC) to ensure the quality of incoming raw materials and orders sent to our customers





Atiq Refractories Company

ATIQ

Global Refractory
Manufacturer & Exporter

# Products

- **Other**
  - Raw Olivine
  - Calcined Olivine
  - EBT Sand
  - Ladle & Tundish Melting Cover
  - Steel & Metal Fiber
  - Anchor
- **Shaped Refractory**
  - Slide Gate
  - Nozzle
    - Tundish Nozzle
    - Ladle Nozzle
  - Well Block
    - Ladle Well Block
    - Tundish Well Block
  - Precast Shapes
- **Unshaped Refractory (Monolithic)**
  - Ramming Ref.
    - Magnesia
    - Doloma
  - Gunning Ref.
    - Alumina
    - Magnesia
    - Tundish Plaster
  - Castable Ref.
    - Alumina
    - Wear Resistance
    - Insulating
  - Mortars
    - Alumina
    - Magnesia
    - Green Mor.
    - Grey Mor.


www.atiq-refractory.com

# Technical Information

## Refractory Castables and Gunnings

| Grade | Chemical Analysis | | | Temp. Limit of App. | C.C.S @ 1300 °C | Mixing water | B.D | Application Method | Grain Size |
|---|---|---|---|---|---|---|---|---|---|
| | $Al_2O_3$ | $Fe_2O_3$ | CaO | | | | | | |
| | Min% | Max% | Max% | °C | $kg/cm^2$ | l/100 kg | $g/cm^3$ | | mm |
| **Kimia Cast A40LI** | 35 | 6 | 15 | 1200 | 70 (110°C) | 38 | 1.05 | C & T* | 0 - 5 |
| **Kimia Gun A40LI** | 35 | 6 | 15 | 1200 | 70 (110°C) | Added at Nozzle | 1.05 | G | 0 - 5 |
| **Kimia Cast A45** | 43 | 6.5 | 12 | 1200 | 300 (1100°C) | 18 | 2.1 | C & T | 0 - 5 |
| **Kimia Cast A55** | 53 | 6.5 | 12 | 1300 | 300 | 18 | 2.2 | C & T | 0 - 5 |
| **Kimia Cast A55LF** | 53 | 2 | 8 | 1400 | 400 | 11 | 2.2 | C & T | 0 - 5 |
| **Kimia Gun A55** | 53 | 2 | 8 | 1400 | 400 | Added at Nozzle | 2.2 | G | 0 - 5 |
| **Kimia Cast A60** | 58 | 2 | 8 | 1450 | 400 | 11 | 2.3 | C & T | 0 - 5 |
| **Kimia Cast A60LC** | 58 | 2 | 2.5 | 1450 | 400 | 8 | 2.3 | C & T | 0 - 5 |
| **Kimia Gun A60** | 58 | 2 | 8 | 1450 | 400 | Added at Nozzle | 2.3 | G | 0 - 5 |
| **Kimia Cast A65** | 63 | 2 | 8 | 1500 | 400 | 11 | 2.4 | C & T | 0 - 5 |
| **Kimia Gun A65** | 63 | 2 | 8 | 1500 | 400 | Added at Nozzle | 2.4 | G | 0 - 5 |
| **Kimia Cast A70** | 68 | 2 | 3.5 | 1600 | 500 | 11 | 2.5 | C & T | 0 - 5 |
| **Kimia Cast A70LC** | 68 | 2 | 2.5 | 1600 | 500 | 8 | 2.5 | C & T | 0 - 5 |
| **Kimia Gun A70** | 68 | 2 | 3.5 | 1600 | 500 | Added at Nozzle | 2.5 | G | 0 - 5 |
| **Kimia Cast A75** | 73 | 2 | 3.5 | 1650 | 500 | 11 | 2.5 | C & T | 0 - 5 |
| **Kimia Cast A80** | 78 | 2 | 3.5 | 1700 | 500 | 11 | 2.6 | C & T | 0 - 5 |
| **Kimia Cast A80LC** | 78 | 2 | 2.5 | 1700 | 700 | 8 | 2.6 | C & T | 0 - 5 |
| **Kimia Cast A85** | 83 | 1.5 | 3.5 | 1750 | 500 | 11 | 2.7 | C & T | 0 - 5 |
| **Kimia Cast A85LC** | 83 | 1.5 | 2.5 | 1750 | 700 | 8 | 2.7 | C & T | 0 - 5 |
| **Kimia Cast A90** | 88 | 1 | 3.5 | 1800 | 600 | 10 | 2.8 | C & T | 0 - 5 |
| **Kimia Cast A90LC** | 88 | 1 | 2.5 | 1800 | 800 | 8 | 2.8 | C & T | 0-5 |
| **Kimia Cast A94** | 93 | 1 | 3.5 | 1850 | 800 | 10 | 3 | C & T | 0 - 5 |
| **Kimia Cast A94LC** | 93 | 1 | 2.5 | 1850 | 800 | 8 | 3 | C & T | 0 - 5 |

* C: Casting T: Trowelling G: Gunning

# Technical Information

## Magnesia Ramming &Tundish Plaster

| Grade | Chemical Analysis | | | B.D | Apparent Porosity | Temp. Limit of Application | Time Limit of Application |
|---|---|---|---|---|---|---|---|
| | MgO | $SiO_2$ | $Fe_2O_3$ | | | | |
| | % | % | Max % | ($g/cm^3$) | Vol % | (°C) | Min |
| **Kimia Coat G1** | 85±2 | 5±3 | 2 | 1.8-2.0 | 35-45 | 1750 | 760 |
| **Kimia Coat G2** | 80±3 | 10±3 | 2.5 | 1.7-1.9 | 35-45 | 1650 | 540 |
| **Kimia Coat G3** | 75±5 | 15±3 | 5 | 1.6-1.8 | 35-45 | 1650 | 360 |
| **Kimia Coat G4** | 60±5 | 25±3 | 7 | 1.5-1.7 | 35-45 | 1650 | 180 |
| **Kimia Coat G5** | 50±5 | 30±3 | 8 | 1.4-1.6 | 35-45 | 1650 | 120 |

## Green & Grey Mortars

| Grade | Chemical Analysis | | | | | | |
|---|---|---|---|---|---|---|---|
| | $Al_2O_3$ | $Fe_2O_3$ | MgO | $SiO_2$ | $Cr_2O_3$ | C | LOI |
| | % | % | % | % | % | % | % |
| **Green Mor** | 75-80 | 1-1.5 | 1-2 | 15-20 | 5-6 | 1-1.5 | 2-3 |
| **Grey Mor** | 75-80 | 1-1.5 | 1-2 | 15-20 | 1-1.5 | 4-5 | 5-7 |

# Technical Information

## Wear Resistance Castables (Falcon)

| Grade | Chemical Analysis | | | | | Temp. Limit of App. | C.C.S @ 110 °C | Application Method | Grain Size | Description & Application |
|---|---|---|---|---|---|---|---|---|---|---|
| | $Al_2O_3$ | $SiO_2$ | $Fe_2O_3$ | SiC | CaO | | | | | |
| | % | % | % | % | % | °C | kg/cm$^2$ | | mm | |
| **Falcon S70** | 2 | 68 | 0.5 | 0 | 18 | 400 | 300 | C & T & G* | 0-3 & 0-5 | Excellent protection against moderate wear at low temperatures |
| **Falcon A30** | 32 | 38 | 1.5 | 0 | 18 | 400 | 400 | C & T & G | 0-3 & 0-5 | Excellent protection against severe wear at low temperatures |
| **Falcon AK55/10** | 53 | 7 | 1 | 10 | 18 | 400 | 400 | C & T & G | 0-3 & 0-5 | High wear resistance, applicable for places and equipment exposed to powder flow |
| **Falcon AK55/30 HT** | 56 | 9 | 1 | 30 | 4 | 1400 | 400 | C & T & G | 0-3 & 0-5 | Excellent wear protection for high temperature applications |
| **Falcon AK75/10 HT** | 74 | 7 | 1 | 10 | 5 | 1400 | 400 | C & T & G | 0-3 & 0-5 | |
| **Falcon K65** | 2 | 12 | 1 | 65 | 18 | 400 | 500 | C & T | 0-3 & 0-5 | Providing ultimate protection against severe wear at relatively low temperatures |
| **Falcon K75 HT** | 18 | 1 | 0.5 | 73 | 5 | 1400 | 500 | C & T | 0-3 & 0-5 | Providing ultimate protection against severe wear in extreme conditions |

* C: Casting T: Trowelling G: Gunning

## Mortars

| Grade | Chemical Analysis | | | Temp. Limit of App. | B.D | Grain Size | Description & Application |
|---|---|---|---|---|---|---|---|
| | $Al_2O_3$ | $Fe_2O_3$ | CaO | | | | |
| | Min% | Max% | Max% | °C | g/cm$^3$ | mm | |
| **Kimia Mor A40** | 38 | 2.5 | 2 | 1400 | 2.1 | 0-0.4 | General Applications Up to 1400°C |
| **Kimia Mor A70** | 67 | 2 | 2 | 1700 | 2.5 | 0-0.4 | General Applications Up to 1700°C |

# Technical Information

## EBT Sand

| Grade | Chemical Analysis | | | | | | B.D | Grain Size | Description & Application |
|---|---|---|---|---|---|---|---|---|---|
| | MgO | $Al_2O_3$ | SiO2 | $Fe_2O_3$ | CaO | LOI | | | |
| | % | Max% | Max% | Max% | Max% | % | g/cm3 | mm | |
| **EBT Sand** | 50±3 | 1 | 39 | 8.5 | 1.5 | 2.5 | 1.7 | 2-6 & 3-8 | Tap Hole Filler in Electric Arc Furnace |

## Ladle Well block

| Grade | Chemical Analysis | | | | | B.D | C.C.S @ 110 °C | C.C.S @ 1300 °C |
|---|---|---|---|---|---|---|---|---|
| | $Al_2O_3$ | $Fe_2O_3$ | CaO | $SiO_2$ | $K_2O+Na_2O$ | | | |
| | % | % | % | % | % | $g/cm^3$ | $kg/cm^2$ | $kg/cm^2$ |
| **Ladle Well block 1QC & 2QC** | 83-85 | 1-2 | 2.5-3.5 | 7-10 | <1 | 2.7-2.8 | 500-700 | 700-1000 |
| **Ladle Well block 1QC & 2QC** | 90-92 | <1 | 2.5-3.5 | 3-6 | <1 | 2.8-2.9 | 500-700 | 800-1100 |

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Atiq Refractories Company produces any type of well blocks (for ladle, tundish and purge plug), tundish nozzles, slide gates, and precast shapes based on customers demands and circumstances.

Slide Gate

Ladle and Purge Plug Well Blocks

Tundish Nozzle

Ladle Nozzles

Steel Fiber

Tundish Well Blocks

Ladle Shroud

Precast Shapes

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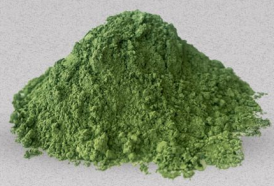
Manufacturer & Exporter

Atiq Refractories Company produces all kinds of conventional and advanced alumina castables and gunning mixes, magnesia and tundish mixes, and different types of mortars based on customers demands and circumstances.

Low and Ultra Low Cement
Alumina Castables



Green Mortar

Gunning Mixes

EBT Sand

Wear Resistance Castables

Insulating Castables

High Alumina Castables

Tundish Plasters

www.atiq-refractory.com

ATIQ

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