

## Fire clay brick

### Brief description

Laurel produce a comprehensive range of Fire clay brick consisting of 30-55% Alumina all of which exhibit excellent strength. For more arduous environments we offer a hand fired “super duty” Fire clay brick with a very high mechanical strength.

Typically our firebrick range is based upon flint clay giving it both a low iron and low alkali characteristic. Resistance to thermal shock, abrasion, chemical attack and reducing atmospheres are just some of the key criteria determining choice of product within each application a wide range of sizes are held in stock.

### Technical data

Item	AL-30	AL-34	AL-38	AL-45	AL-55
AL <sub>2</sub> O <sub>3</sub> % (min)	30	34	38	45	55
Fe <sub>2</sub> O <sub>3</sub> % (max)	2.5	2.5	2.0	2.0	2
Refractoriness	1670°C	1710°C	1750°C	1770°C	1770°C
Refractoriness under load, 0.2MPa, (°C)	1250	1300	1350	1450	1470
1470 Apparent porosity (%)	22-26	22-26	20-24	20-22	20
Bulk density (g/cm <sup>3</sup> )	1.9-2.1	1.95-2.1	2.1-2.2	2.15-2.22	2.2-2.35
Cold crushing strength (Mpa)	25	20	30	35	40
Thermal expansion at 1000°C (%)	0.8	0.6	0.6	0.5	0.4

### Features

1. low thermal conductivity, good thermal insulation performance.
2. long service life, easy operation, could be shaped freely
3. Product specification: standard form, normal standard, shaped and special shaped bricks.
4. Can be used in various kilns because of its cheapness and general tray package. Among all of the refractory materials, it is the most widely used.

### Applications

1. Carbon bake furnaces in the aluminium industry
2. Preheat zones and cyclones of rotary cement kilns
3. Insulation for glass tanks
4. Coke ovens
5. Blast furnaces
6. Reheating furnaces
7. Suspended roofs
8. Lime kilns
9. chimney

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