

Low Porosity Fireclay Bricks

| Grade | Unit | FDN-12 | FDN-15 | FDN-18 |
|--|-------------------|-----------|-----------|-----------|
| Al ₂ O ₃ | % | ≥45 | ≥43 | ≥40 |
| Fe ₂ O ₃ | % | ≤1.1 | ≤1.6 | ≤2.0 |
| Refractoriness | °C | ≥1770 | ≥1770 | ≥1750 |
| Bulk Density | g/cm ³ | ≥2.37 | ≥2.3 | ≥2.25 |
| Apparent Porosity | % | ≤12 | ≤15 | ≤18 |
| Cold Crushing Strength | MPa | ≥60 | ≥50 | ≥50 |
| 0.2MPa Refractoriness Under Load, T0.6 | °C | ≥1500 | ≥1450 | ≥1420 |
| Permanent Linear Change, 1400°C*2h | % | +0.1~-0.1 | +0.1~-0.2 | +0.1~-0.3 |

Superduty & Normal Duty Fireclay Bricks

| Grade | Unit | SK32 | SK33 | SK34 | SK35 | PN-42 | PN-40 | PN-35 |
|--|-------------------|-------|-------|-------|-------|--------------------------|--------------------------|--------------------------|
| Refractoriness | SK | 32 | 33 | 34 | 35 | | | |
| Refractoriness | °C | | | | | 1750 | 1730 | 1710 |
| Bulk Density | g/cm ³ | ≥2.0 | ≥2.15 | ≥2.2 | ≥2.25 | 2.20 | 2.15 | 2.10 |
| Apparent Porosity | % | ≤24 | ≤24 | ≤24 | ≤23 | ≤20 | ≤24 | ≤26 |
| Cold Crushing Strength | MPa | ≥25 | | ≥30 | | ≥45 | ≥35 | ≥30 |
| 0.2MPa Refractoriness Under Load, T0.6 | °C | ≥1250 | ≥1300 | ≥1350 | ≥1380 | ≥1400 | ≥1350 | ≥1320 |
| Permanent Linear Change | % | | | | | +0.1~-0.4 (1400°C*2h) | +0.1~-0.4 (1350°C*2h) | +0.1~-0.4 (1300°C*2h) |
| Al ₂ O ₃ | % | ≥35 | ≥38 | ≥38 | ≥45 | ≥42 | ≥40 | ≥35 |
| Fe ₂ O ₃ | % | ≤3.0 | ≤2.8 | ≤2.5 | ≤2.5 | ≤2.0 | ≤2.5 | ≤3.0 |

All provided data are average outcomes from standard testing processes and may exhibit variability. These results are not intended for specification purposes or to establish any contractual commitments. For detailed information on safe usage or material specifics, please consult our sales engineers.

Fireclay Bricks for Hot Blast Stove

| Grade | Unit | RN-42 | RN-40 | RN-36 |
|--|-------------------|-----------------------|-------------------------|---|
| Al ₂ O ₃ | % | 42 | ≥42 | ≥40 |
| Bulk Density | g/cm ³ | 2.00-2.20 | 2.00-2.20 | 2.00-2.20 |
| Apparent Porosity | % | 22(24) | 22(24) | 22(24) |
| Cold Crushing Strength | MPa | ≥35 | ≥30 | ≥25 |
| 0.2MPa Refractoriness Under Load, T0.5 | °C | ≥1410 | ≥1350 | ≥1350 |
| Permanent Linear Change | % | -0.4~0 (1400°C*2h) | -0.5 - 0 (1350°C*2h) | +0.2 - -0.2 or -0.5 - 0 (1350°C*2h) |

Note 1: The data in the brackets is for checker bricks,

Note 2: The bulk density data is for reference of bricks engineering, not for assessment.

Fireclay Bricks for Carbon Baking Furnace

| Grade | Unit | BGB | BFA | BFD |
|--|-------------------|--------------------------|----------------------|-----------------------|
| Al ₂ O ₃ | % | | 42 | 42 |
| Fe ₂ O ₃ | % | | ≤1.8 | ≤2.0 |
| Bulk Density | g/cm ³ | | 2.25 | 2.15 |
| Apparent Porosity | ≤8kg | | ≤16 | ≤16 |
| | 8.1~12kg | % | ≤17 | ≤17 |
| | >12kg | | ≤22 | ≤18 |
| Cold Crushing Strength | MPa | ≥30 | ≥49 | ≥49 |
| Refractoriness | °C | ≥1750 | ≥1750 | ≥1730 |
| 0.2MPa Refractoriness Under Load, T0.5 | °C | ≥1400 | ≥1450 | ≥1420 |
| Permanent Linear Change | % | -0.4~+0.1 (1400°C*2h) | 0~0.3 (1450°C*2h) | 0~-0.2 (1400°C*2h) |
| Thermal Expansion Rate (20°C to 1000°C) | % | | 0.7 | 0.7 |

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Fireclay Bricks for Coke Oven (DIN Standard)

| Grade | Unit | KA40-1 | | KA40-2 | |
|---|------|---------|-----------|---------|-----------|
| | | Assured | a (Sigma) | Assured | a (Sigma) |
| Al ₂ O ₃ | % | ≥40 | 1.5 | ≥40 | 1.5 |
| Fe ₂ O ₃ | % | ≤2.0 | 0.5 | ≤2.0 | 0.5 |
| Apparent Porosity | % | ≤20 | 2 | ≤24 | 2 |
| Cold Crushing Strength | MPa | ≥35 | 10 | ≥30 | 10 |
| | | Xmin=25 | Xmin=20 | | |
| 0.2MPa Refractoriness Under Load, T0.5 | °C | ≥1350 | 25 | ≥1300 | 25 |
| Permanent Linear Change | % | / | / | / | / |
| Creep in Compression 0.5N/mm ² Load — 1K/min Z 5-25 | | ≤0.1 | 0.03 | / | / |
| Creep in Compression 0.5N/mm ² Load — 1K/min Z 5-25 | | ≤0.25 | 0.1 | / | / |

Note1: The data of KA40-2,s for checker bricks

Fireclay Bricks & Semi-silica Bricks for Coke Oven

| Grade | Unit | JNZ-35 | BGZ-65 |
|--|------|-----------------------|-----------------------|
| Al ₂ O ₃ | % | ≥35 | <30 |
| Fe ₂ O ₃ | % | ≤2.5 | / |
| SiO ₂ | | / | ≥65 |
| Apparent Porosity | % | ≤24 | ≤24 |
| Cold Crushing Strength | MPa | ≥30 | ≥30 |
| 0.2MPa Refractoriness Under Load, T0.6 | °C | ≥1350 | ≥1350 |
| Refractoriness | °C | ≥1680 | / |
| Permanent Linear Change | % | -0.3~0 (1350°C*2h) | -0.2~0 (1350°C*2h) |

Note1: Checker brick only test refractoriness, RUL is not considered.

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