

Monolithic Refractories for Glass Industry

Data Sheet

| Item | | Ziron castable | AZS castable | Zircon-mullite castable | Zircon-mullite ramming | Silica castable | | |
|---|------------|------------------|--------------|-------------------------|------------------------|-----------------|-------|-------|
| item | | | CZJ63 | CAZSJ33 | CZMJ25 | CZMD18 | CGJ85 | CGJ95 |
| Al ₂ O ₃ | % | ≥ | ≤1 | 46 | 55 | 65 | | |
| SiO ₂ | % ≤ | | 32 | 17 | 15 | 10 | 85 | 95 |
| ZrO ₂ (Cao) | % ≥ | | 63 | 33 | 25 | 18 | 12 | 4 |
| Bulk density (g/cm³) ≥ | | | 3.5 | 3 | 3 | 3 | 1.7 | 1.8 |
| C.C.S. (MPa) ≥ | 110℃×24h | | | 30 | 15 | | | |
| | 300℃×24h | | 80 | | | 65 | 10 | 15 |
| | 1000°C×24h | | 90 | 80 | 70 | 65 | 20 | 25 |
| Reheating linear change (%) ≤ | 1400 | 0°C×3h -0.5 -0.4 | | -1 | -0.3 | -0.5 | -0.5 | |
| Max. service temperature ($^{\circ}$ C) \geq | | | 1650 | 1600 | 1600 | 1650 | 1400 | 1650 |

Note: Technical Data are typical results from test pieces. This information, subject to change, is offered solely for your consideration. Users of our products should make their own tests to determine the suitability of each product for their particular purposes.

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CNBM INTERNATIONAL CORPORATION

| Item | | | Silica hot repairing mix | Corundum castable | Mullite castable | Fireclay castable | Light weight fireclay castable | |
|---------------------------------|--------------|---------------|--------------------------|-------------------|------------------|-------------------|--------------------------------|--|
| | | | CGHB92 | CGYJ85 | CML70 | CNL40 | CQNL40 | |
| Al ₂ O ₃ | % | ≥ | | 85 | 72 | 40 | 40 | |
| SiO ₂ | % | ≤ | 92 | | | | | |
| ZrO ₂ (Cao) | % | ≥ | | | 3.5 | 3 | 15 | |
| Bulk density (g/cm³) ≥ | | | | 2.9 | 2.4 | 2.2 | ≤1.2 | |
| C.C.S. (MPa) ≥ | 110 ℃ | ×24h | | 35 | 60 | | | |
| | 300℃×24h | | | | | 55 | 6 | |
| | 1000° | C ×24h | | | 50 | 75 | 4 | |
| | 1400℃×2h | | 35 | | | | | |
| | 1500° | C ×3h | | 50 | | | | |
| Reheating linear change (%) ≤ | 1200° | C ×3h | | | | | ±0.6 | |
| | 1400°C×3h | | | | | ±0.5 | | |
| | 1500° | C ×3h | | ±0.5 | ±0.5 | | | |
| Max. service temperature (°C) ≥ | | 1650 | 1750 | 1600 | 1400 | 1200 | | |

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| Item | | Mullite mortar | Fireclay mortar | | Magnesia mortar | | | Zirconia mortar | Zircon-mullite mortar |
|--|------------|----------------|-----------------|--------|-------------------|----|--------|-----------------|-----------------------|
| | | CMN80 | CNN40 | CNN45 | CMF95 CMF97 CMF95 | | CZN60 | CZN31 | |
| Al ₂ O ₃ | % ≥ | 80 | 40 | 45 | | | ≤1 | 49 | |
| SiO ₂ | % ≤ | | | | | | 36 | 16 | |
| MgO | % ≤ | | | | 95 | 97 | 98 | | |
| ZrO ₂ | % ≥ | | | | | | | 60 | 31 |
| Cold adhesive strength (MPa) ≥ | 110℃×24h | 2.5 | 1 | 1 | | | 3 | 3 | |
| | 1400℃×3h | 5 | 5 | 6 | | | 6 | 6 | |
| Adhesive time (S) | | 60-120 | 60-180 | 60-180 | 60-180 | | 60-120 | 60-120 | |
| Grain Composition (%) | -1mm | 100 | | | | | | | |
| | +0.5mm ≤ | 2 | | | | | | | |
| | -0.074mm ≥ | 50 | | | | | | | |
| Max. service temperature $(^{\circ}\mathbb{C}) \geq$ | | 1750 | 1500 | 1600 | 1750 | | 1750 | | 1650 |

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