

The Technical Association of Refractories, Japan

Certified Reference Material Series for X-ray Fluorescence Analysis of Refractories

JRRM 501 - 512 (Series No1 for Chrome-Magnesia Refractories)

Certificate of Analyses

| Constituent | SiO ₂ | Al ₂ O ₃ | Fe ₂ O ₃ | TiO ₂ | MnO | CaO | MgO | Cr ₂ O ₃ | Unit mass% | | | |
|-------------|-------------------|--------------------------------|--------------------------------|-------------------|-------------------|-------------------|-------------------|--------------------------------|-------------------------------|-------------------------------|-------------------|-------------------|
| | | | | | | | | | Uncertified value | | | |
| | | | | | | | | | P ₂ O ₅ | V ₂ O ₅ | NiO | ZnO |
| JRRM 501 | 0.92 ₈ | 2.92 ₆ | 4.81 ₃ | 0.00 ₆ | 0.02 ₀ | 0.92 ₄ | 87.7 ₂ | 2.83 ₂ | 0.03 ₆ | 0.01 ₉ | 0.01 ₈ | 0.00 ₆ |
| JRRM 502 | 3.12 ₀ | 11.9 ₉ | 1.02 ₂ | 0.01 ₃ | 0.01 ₈ | 0.20 ₁ | 76.3 ₃ | 7.50 ₃ | 0.02 ₆ | 0.02 ₄ | 0.02 ₆ | 0.00 ₄ |
| JRRM 503 | 9.10 ₆ | 7.15 ₅ | 3.00 ₉ | 0.04 ₇ | 0.03 ₈ | 3.81 ₉ | 63.1 ₉ | 13.6 ₁ | 0.03 ₂ | 0.03 ₇ | 0.03 ₆ | 0.01 ₃ |
| JRRM 504 | 2.19 ₂ | 17.5 ₈ | 4.11 ₇ | 0.01 ₄ | 0.01 ₁ | 2.61 ₁ | 54.8 ₈ | 18.3 ₇ | 0.03 ₄ | 0.01 ₆ | 0.01 ₅ | 0.01 ₁ |
| JRRM 505 | 1.82 ₄ | 7.77 ₅ | 17.7 ₇ | 0.11 ₈ | 0.10 ₉ | 0.49 ₃ | 50.1 ₈ | 21.7 ₅ | 0.02 ₃ | 0.07 ₅ | 0.07 ₈ | 0.02 ₁ |
| JRRM 506 | 2.16 ₇ | 14.7 ₀ | 7.49 ₅ | 0.13 ₄ | 0.07 ₂ | 0.46 ₀ | 46.6 ₉ | 28.2 ₁ | 0.01 ₈ | 0.08 ₆ | 0.09 ₄ | 0.01 ₀ |
| JRRM 507 | 5.69 ₂ | 24.9 ₉ | 12.9 ₈ | 0.16 ₆ | 0.11 ₅ | 1.61 ₃ | 22.3 ₄ | 31.9 ₉ | 0.01 ₀ | 0.13 ₀ | 0.20 ₄ | 0.03 ₇ |
| JRRM 508 | 3.08 ₂ | 3.98 ₃ | 22.7 ₁ | 0.01 ₄ | 0.00 ₆ | 1.03 ₁ | 30.8 ₈ | 38.2 ₀ | 0.01 ₆ | 0.00 ₈ | 0.01 ₀ | 0.00 ₅ |
| JRRM 509 | 1.96 ₇ | 20.3 ₁ | 10.1 ₆ | 1.20 ₅ | 0.08 ₂ | 2.87 ₁ | 20.4 ₇ | 42.6 ₃ | 0.01 ₃ | 0.11 ₈ | 0.04 ₄ | 0.03 ₇ |
| JRRM 510 | 4.90 ₂ | 12.1 ₃ | 14.9 ₅ | 0.13 ₃ | 0.17 ₆ | 0.29 ₀ | 16.8 ₂ | 50.2 ₅ | 0.01 ₆ | 0.11 ₁ | 0.19 ₃ | 0.04 ₁ |
| JRRM 511 | 2.89 ₅ | 6.65 ₂ | 27.0 ₉ | 0.10 ₅ | 0.12 ₆ | 0.07 ₁ | 10.5 ₇ | 52.2 ₆ | 0.00 ₄ | 0.05 ₄ | 0.10 ₈ | 0.05 ₂ |
| JRRM 512 | 10.5 ₇ | 29.2 ₆ | 26.0 ₂ | 0.04 ₇ | 0.02 ₅ | 4.06 ₃ | 24.8 ₂ | 4.99 ₀ | 0.01 ₉ | 0.01 ₂ | 0.01 ₈ | 0.01 ₃ |

Note: The above values show the contents after igniting for an hour at 800±25 °C.

Prepared, values given and certified by

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