

## High Temperature Bricks and Shapes

### Typical Properties

| Composition                         |                   | CM95                | CM90                | CM85                | CM80                | CM75        |
|-------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-------------|
| Minerology                          |                   | Corundum<br>Mullite | Corundum<br>Mullite | Corundum<br>Mullite | Corundum<br>Mullite | Mullite     |
| Al <sub>2</sub> O <sub>3</sub>      | %                 | 95                  | 90                  | 85                  | 80                  | 75          |
| SiO <sub>2</sub>                    | %                 | 3.0                 | 8.5                 | 13.5                | 18.5                | 23          |
| MgO                                 | %                 | 0.3                 | 0.4                 | 0.5                 | 0.5                 | 0.3         |
| Fe <sub>2</sub> O <sub>3</sub>      | %                 | 0.3                 | 0.5                 | 0.5                 | 0.5                 | 0.5         |
| Property                            |                   |                     |                     |                     |                     |             |
| Max Service Temperature             | °C (°F)           | 1750 (3200)         | 1700 (3100)         | 1650 (3000)         | 1600 (2900)         | 1600 (2900) |
| Bulk Density                        | g/cm <sup>3</sup> | 3.2                 | 3.2                 | 3.0                 | 2.9                 | 2.7         |
| Open Porosity                       | %                 | 16                  | 17                  | 18                  | 18                  | 17          |
| Compressive Strength (room temp)    | MPa               | 130                 | 120                 | 110                 | 100                 | 90          |
| Refractoriness under Load (@0.2MPa) | °C (°F)           | 1700 (3100)         | 1700 (3100)         | 1680 (3050)         | 1620 (2950)         | 1650 (3000) |
| Thermal Expansion (20-1000°C)       | 10-6/K            | 8.0                 | 8.0                 | 7.5                 | 7.0                 | 5.5         |
| Specific Heat Capacity              | kJ/kg.K           | 1.0                 | 1.0                 | 1.0                 | 1.0                 | 0.1         |
| Thermal Shock Resistance            |                   | **                  | ***                 | ****                | ****                | *****       |

This information is given in good faith but does not constitute a specification or guarantee.