

# MAXIAL 210 M

| General information                 |  |
|-------------------------------------|--|
| <b>Classification</b>               | Fireclay product type FC40 ISO 10081-1 |
| <b>Main raw material components</b> | Fireclay                               |
| <b>Bonding type</b>                 | Ceramic                                |

| Chemical analysis   |                                |                  |                  |      |                  |
|---|--------------------------------|------------------|------------------|------|------------------|
| Al <sub>2</sub> O <sub>3</sub>  | Fe <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub> | TiO <sub>2</sub> | CaO  | K <sub>2</sub> O |
| 46.0%   | 1.6%                           | 48.0%            | 1.7%             | 0.4% | 0.9%             |
| Na <sub>2</sub> O   | MgO                            |                  |                  |      |                  |
| 0.5%  | 0.5%                           |                  |                  |      |                  |
| Determination on fired substance (1025 °C / 1877 °F) acc. to EN ISO 12677 |                                |                  |                  |      |                  |

| Physical properties                              |       |                      |             |
|--|-------|----------------------|-------------|
| <b>Bulk Density</b>                              | 2,28  | [g/cm <sup>3</sup> ] | EN 993-1    |
| <b>Apparent Porosity</b>                         | 18,0  | [vol%]               | EN 993-1    |
| <b>Cold Crushing Strength</b>                    | 50,0  | [N/mm <sup>2</sup> ] | EN 993-5    |
| <b>Modulus of Rupture</b>                        | 9,0   | [N/mm <sup>2</sup> ] | EN 993-6    |
| <b>Hot Modulus of Rupt. (1250 °C / 2282 °F)</b>  | 3,5   | [N/mm <sup>2</sup> ] | EN 993-7    |
| <b>PLC (1400 °C / 2552 °F)</b>                   | -0,50 | [%]                  | EN 993-10   |
| <b>Refractoriness under Load T<sub>0</sub></b>   | 1100  | [°C]                 | ISO 1893    |
| <b>Refractoriness under Load T<sub>0,5</sub></b> | 1300  | [°C]                 | ISO 1893    |
| <b>- with load</b>                               | 0,200 | [N/mm <sup>2</sup> ] |             |
| <b>Pyrometric cone equivalent (cone no.: 29)</b> | 1.659 | [°C]                 | ASTM C24-01 |
| <b>Hot load test (25 psi)</b>                    |       |                      | ASTM C16    |
| <b>- at test temperatures</b>                    | 2.370 | [°F]                 |             |
| <b>- schedules</b>                               | 1     |                      |             |
| <b>- holding time</b>                            | 1,5   | [h]                  |             |
| <b>- change in length</b>                        | -0,90 | [%]                  |             |

The indicated values are standard values, i.e. values taken over a longer representative period of time according to either valid test standards or internal test methods. They may not be regarded as committed specifications and therefore not as guaranteed properties. We reserve the right to further technical developments and new editions of technical product information.

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|                                     |                          |        |                      |             |
|-------------------------------------|--------------------------|--------|----------------------|-------------|
| <b>Res. to Thermal Shocks Water</b> |                          | 30     | [cycles]             | DIN 51068-1 |
| <b>Thermal Conductivity</b>         | <b>500 °C / 932 °F</b>   | 1,20   | [W/mK]               | Dr. Klasse  |
|                                     | <b>750 °C / 1382 °F</b>  | 1,30   | [W/mK]               | Dr. Klasse  |
|                                     | <b>1000 °C / 1832 °F</b> | 1,40   | [W/mK]               | Dr. Klasse  |
| <b>CO-Resistance (class)</b>        |                          | A      |                      | ASTM C288   |
| <b>Modulus of Deformation</b>       |                          | 11.000 | [N/mm <sup>2</sup> ] |             |

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