

# Product data sheet

## SioxX®-Ten / SioxX®-Ten PLUS

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| <b>Description</b>                        | <p>SioxX®- Ten and SioxX®- Ten PLUS are primarily designed for ultra low cement alumina based or microsilica-gel bonded no-cement castables..</p> <p>SioxX®- Ten mainly works at the range of 800-1100°C, while SioxX®- Ten PLUS is recommended to work at the range of 600-900°C.</p> <p>Both of them enhance the rheological properties, reduce the water demand, increase the flow, control the working and de-moulding time, help develop high green strength as well as high strength at the indicated working range of temperature.</p>  |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
|---|--|------------------|-------------|------------------|--------------------------------------|--------------|-------------|------------|-------------|--|--------------|-----------------------------|--|-------------------------|--------|--|------------------|--------------|--|--------------------------------|--------------|--|-----------------------|-------------|--|--------------------|------------|--|
| <b>Applications</b>                       | Tailor-made product for microsilica-gel bonded mixes and castables.  |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| <b>Benefits</b>                           | <ul style="list-style-type: none"> <li>• Reproducible wet-out, flow and set-time</li> <li>• Improved green strength</li> <li>• Easy to dose</li> <li>• Easy to disperse in the dry and wet mix</li> </ul>  |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| <b>Technical data</b>                     | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">SioxX®- Ten</th> <th style="text-align: center;">SioxX®- Ten PLUS</th> </tr> </thead> <tbody> <tr> <td>Range of Working Temp <sup>(1)</sup></td> <td style="text-align: center;">800 - 1100°C</td> <td style="text-align: center;">600 - 900°C</td> </tr> <tr> <td>Appearance</td> <td colspan="2" style="text-align: center;">Grey powder</td> </tr> <tr> <td>Bulk density</td> <td colspan="2" style="text-align: center;">300 - 550 kg/m<sup>3</sup></td> </tr> <tr> <td>pH-value (10% solution)</td> <td colspan="2" style="text-align: center;">8 – 10</td> </tr> <tr> <td>SiO<sub>2</sub></td> <td colspan="2" style="text-align: center;">50 - 65 %w/w</td> </tr> <tr> <td>Al<sub>2</sub>O<sub>3</sub></td> <td colspan="2" style="text-align: center;">20 - 35 %w/w</td> </tr> <tr> <td>Proprietary additives</td> <td colspan="2" style="text-align: center;">8 - 18 %w/w</td> </tr> <tr> <td>Recommended dosage</td> <td colspan="2" style="text-align: center;">2 - 3 %w/w</td> </tr> </tbody> </table> <p><sup>(1)</sup> Based on Tabular alumina recipe</p> |                  | SioxX®- Ten | SioxX®- Ten PLUS | Range of Working Temp <sup>(1)</sup> | 800 - 1100°C | 600 - 900°C | Appearance | Grey powder |  | Bulk density | 300 - 550 kg/m <sup>3</sup> |  | pH-value (10% solution) | 8 – 10 |  | SiO <sub>2</sub> | 50 - 65 %w/w |  | Al <sub>2</sub> O <sub>3</sub> | 20 - 35 %w/w |  | Proprietary additives | 8 - 18 %w/w |  | Recommended dosage | 2 - 3 %w/w |  |
|   | SioxX®- Ten  | SioxX®- Ten PLUS |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| Range of Working Temp <sup>(1)</sup>      | 800 - 1100°C   | 600 - 900°C      |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| Appearance                                | Grey powder  |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| Bulk density                              | 300 - 550 kg/m <sup>3</sup>  |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| pH-value (10% solution)                   | 8 – 10   |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| SiO <sub>2</sub>                          | 50 - 65 %w/w   |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| Al <sub>2</sub> O <sub>3</sub>            | 20 - 35 %w/w   |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| Proprietary additives                     | 8 - 18 %w/w  |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| Recommended dosage                        | 2 - 3 %w/w   |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| <b>Packaging</b>                          | The product is available in 20 kg plastic bags, 600 kg per pallet. Please contact our sales representative for more details.   |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| <b>Storage and handling</b>               | <ul style="list-style-type: none"> <li>• Avoid dust generation</li> <li>• Store in original packaging (or re-seal opened packages) under dry conditions &gt;0°C.</li> <li>• Shelf-life (best before) is 24 months from the date of production, if stored properly and unopened in their original packaging.</li> </ul>   |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| <b>Health, safety &amp; environment</b>   | <p>Please consult our Product Safety information on our website:</p> <p><a href="#">Silicon based materials   TDS/SDS Finder   Elkem.com</a></p>   |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| <b>Sustainability</b>                     | <p>For Elkem, sustainability is central to our business strategy. Our mission is to provide advanced material solutions shaping a better and more sustainable future, adding value to our stakeholders globally. We are committed to reduction in embodied carbon emission. For further information, please visit <a href="http://www.elkem.com/sustainability/">www.elkem.com/sustainability/</a> or contact us to learn more about our sustainability roadmap.</p>   |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |
| <b>Additional information and contact</b> | <p>The latest versions of the product data sheet can be found on Elkem Website and in Elkem Refractory App. For further information, please contact our local sales representative. Our specialists will assist you in solving individual problems.</p>  |                  |             |                  |                                      |              |             |            |             |  |              |                             |  |                         |        |  |                  |              |  |                                |              |  |                       |             |  |                    |            |  |