

Microsilica

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| CHEMICAL NAME | Silica Fume | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAS NUMBER | 69012-64-2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EINECS | 273-761-1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FUNCTION | Cement additives, Ceramic and refractory products | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TECHNICAL REQUIREMENTS | <table> <tr> <td>SiO₂ (diff.).....</td><td>95%</td></tr> <tr> <td>Al₂O₃</td><td>0,3%</td></tr> <tr> <td>C*</td><td>1,8%</td></tr> <tr> <td>CaO</td><td>0,7%</td></tr> <tr> <td>Fe₂O₃</td><td>0,1%</td></tr> <tr> <td>K₂O</td><td>0,4%</td></tr> <tr> <td>MgO.....</td><td>0,2%</td></tr> <tr> <td>Na₂O</td><td>0,1%</td></tr> <tr> <td>Loss on ignition (1173K)</td><td>1,5%</td></tr> <tr> <td>Moisture when packed (378K).....</td><td>0,2%</td></tr> <tr> <td>pH.....</td><td>7,2</td></tr> <tr> <td>BET, m²/g.....</td><td>20 – 27</td></tr> <tr> <td>Bulk density, kg/m³.....</td><td>550 - 750</td></tr> </table> <p>*without C in SiC</p> | SiO ₂ (diff.)..... | 95% | Al ₂ O ₃ | 0,3% | C* | 1,8% | CaO | 0,7% | Fe ₂ O ₃ | 0,1% | K ₂ O | 0,4% | MgO..... | 0,2% | Na ₂ O | 0,1% | Loss on ignition (1173K) | 1,5% | Moisture when packed (378K)..... | 0,2% | pH..... | 7,2 | BET, m ² /g..... | 20 – 27 | Bulk density, kg/m ³ | 550 - 750 |
| SiO ₂ (diff.)..... | 95% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Al ₂ O ₃ | 0,3% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C* | 1,8% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CaO | 0,7% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fe ₂ O ₃ | 0,1% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K ₂ O | 0,4% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MgO..... | 0,2% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Na ₂ O | 0,1% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Loss on ignition (1173K) | 1,5% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moisture when packed (378K)..... | 0,2% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH..... | 7,2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BET, m ² /g..... | 20 – 27 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bulk density, kg/m ³ | 550 - 750 | | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL DATA

Color..... grey, light grey
Odour..... odourless
Melting Point, °C 1550 - 1570
Solubility (Water)..... Insoluble/slightly soluble
Solubility (Organic solvents)..... Insoluble/slightly soluble
Specific Gravity (water =1) 2.2 - 2.3
Specific Surface, m²/g 15 - 30
Particle size, mean, µm..... 0.15
(less than 0.1 % of primary particles > 45 µm)

APPLICATION

- production of mortars and castables,
- production of insulating materials,
- production of ceramic and refractory products,
- other industrial applications.