

# Product data sheet

## Elkem Microsilica® 971

Elkem ASA Silicon Products  
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- Description** Elkem Microsilica® is a key ingredient in advanced low and ultra-low cement castables. It is highly reactive during sintering, which leads to improved ceramic bonding at reduced firing temperatures.
- Applications** Elkem Microsilica® is used in castables, gunning mixes and other shaped and unshaped materials.
- Features** Elkem Microsilica® 971 is offered both as Undensified (971-U) and Densified (971-D).
- Benefits**
- Improved flow – easier to cast
  - Improved particle packing - denser castables
  - Gel-bonding
  - Improved hot-strength properties

Chemical analysis & physical data	Weight%	Spec*	Typical**
	SiO <sub>2</sub> (diff.)		97
	C <sub>free</sub> ***	max. 0.8	0.59
	Fe <sub>2</sub> O <sub>3</sub>	max. 0.1	0.07
	Al <sub>2</sub> O <sub>3</sub>	max. 0.3	0.20
	CaO	max. 0.4	0.29
	MgO	max. 0.2	0.18
	K <sub>2</sub> O	max. 0.3	0.22
	Na <sub>2</sub> O	max. 0.3	0.25
	P <sub>2</sub> O <sub>5</sub>	max. 0.10	0.04
	SO <sub>3</sub>	max. 0.3	0.17
	Cl	max. 0.10	0.01
	H <sub>2</sub> O ****	max. 0.5	0.20
	<b>Properties</b>	<b>Spec*</b>	<b>Typical**</b>
	Loss on Ignition	% max. 0.8	0.54
	Coarse Particles >45µm	% max. 0.5	0.25
	pH-value	5.5-7.8	7.2
	Bulk density ****		
	<u>Undensified 971-U</u>	kg/m <sup>3</sup> 250-350	300
	<u>Densified 971-D</u>	kg/m <sup>3</sup> 450-550	500

\* Test methods are available upon request

\*\* Typical values are for guidance only

\*\*\* C in SiC is not included

\*\*\*\* When packed

- Packaging** The product is available in 25 kg small bags and various sized big bags. Please contact our sales representative for more details.
- Storage and handling**
- Avoid dust generation
  - Store material properly, protected from moisture and contamination
- Health, safety & environment** Please consult our Product Safety information on our website: <https://www.elkem.com/silicon-products/refractories/microsilica/page-1/>.
- Sustainability** 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 [www.elkem.com/sustainability/](http://www.elkem.com/sustainability/) or contact us to learn more about our sustainability roadmap.
- Additional information and contact** For further information, please contact our local sales representative. Our specialists will assist you in solving individual problems.