

Product Data Sheet

Elkem Microsilica® 971

1. 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. Elkem Microsilica® is used in mortars, gunning mixes and other shaped and unshaped materials. Elkem Microsilica® 971 is offered both as Undensified (971-U) and Densified (971-D).

2. Chemical Analysis (weight%)

Element			Spec*	
Typical**				
SiO ₂	%	min.	98	98.4
C _{free} ***	%	max.	0.7	0.50
Fe ₂ O ₃	%	max.	0.1	0.01
Al ₂ O ₃	%	max.	0.3	0.20
CaO	%	max.	0.3	0.20
MgO	%	max.	0.2	0.10
K ₂ O	%	max.	0.3	0.20
Na ₂ O	%	max.	0.2	0.15
P ₂ O ₅	%	max.	0.10	0.03
SO ₃	%	max.	0.3	0.10
Cl	%	max.	0.10	0.01
H ₂ O ****	%	max.	0.5	0.20

3. Physical Data

Properties			Spec*	
Typical**				
Loss on Ignition	% max.	0.8	0.50	
Coarse Particles >45µm	% max.	0.5	0.20	
pH-value		5.5 - 7.5	6.8	
<u>Undensified</u> 971-U				
Bulk density ****	kg/m ³	250 - 350	300	
<u>Densified</u> 971-D				
Bulk density ****	kg/m ³	450 - 550	500	

* Test methods are available upon request

** Typical values are for guidance only

*** C in SiC is not included

**** When packed

4. Customer benefits

- Improved flow – easier to cast
- Improved particle packing - denser castables
- Gel-bonding
- Improved hot-strength properties

5. Health, Safety and Environment

Please consult our Product Safety information on our website: <https://www.elkem.com/no/silicon-materials/microsilica/>

6. Packaging

The product is available in 25 kg small bags and various sized big bags. Please contact our sales representative for more details.

7. Handling and storage

- Avoid dust generation
- Store material properly, protected from moisture and contamination

8. Local Elkem representative

For further information, please contact our local sales representative. Our specialists will assist you in solving individual problems.

All data listed are reference values subject to production-related tolerances. Although reasonable care has been taken in the preparation of the information contained herein, it still remains the duty of the user to prove the suitability of this material for his applications.

Elkem Microsilica® is a registered trademark of Elkem ASA.

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Revised October 2018

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