

XL-SiC Coating

The key to optimizing costs of ownership

Keeping costs down and productivity up in the semiconductor industry is an extreme challenge for every-one. As technologies change faster and faster, and harsh environments attack components more fiercely than ever.

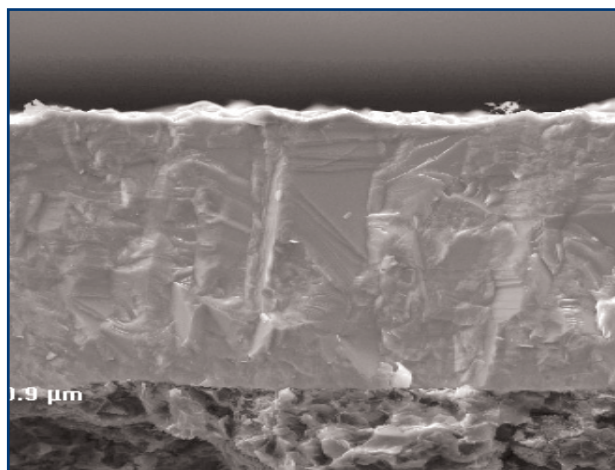
Current trends in Single Wafer Epitaxy Susceptors

- higher purity of coating
- increase of lifetime
- lower cost per wafer

To meet these challenging trends Schunk Semiconductor developed a new SiC coating. Our XL-SiC coating has several advantages

Because new precursors are being used for deposition a higher purity of the SiC coating can be achieved. It is therefore that XL-SiC can meet the current and future requirements. Coating purity is a determining factor for the lifetime of the susceptor.

Higher purity will result in longer lifetime of the susceptor, which eventually will lead to a lower cost per wafer.



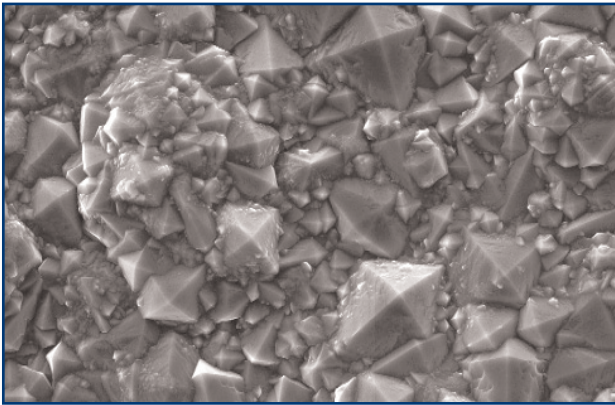
XL-SiC coating

The table below provides information on the purities of our XL-SiC coating.

Chemical Analysis XL-SiC Coating		
Chemical	Detection Limit	XL-SiC coating
Al	0.01	not detected
B	0.03	0.02
Ca	0.05	not detected
Cr	0.01	not detected
Cu	0.05	not detected
Fe	-	0.02
K	-	0.05
Mg	0.01	not detected
Mo	0.05	not detected
Na	0.01	not detected
Ni	0.01	not detected
Ti	0.01	not detected
V	0.005	not detected
W	0.01	not detected
Zr	0.01	not detected

Impurity Levels as measured with GDMS.

Typical values, (Ppm by weight).



"Crystalline" structure, 25µm

Schunk Semiconductor – partner for all your semiconductor tooling and services

Schunk Semiconductor is your trusted semiconductor partner. The enterprise brings together several specialist companies, each a major player in its own semiconductor area. Together, we offer the entire range of critical consumable products and services for the semiconductor wafer manufacturing and processing industry, including CVD-coated, carbon fiber-composite, graphite, and quartz, as well as high performance silicon and ceramic products. We also supply non-ceramics, like refractory metals, metal parts, ESCs, etc. Our consumables help reduce costs and improve productivity in some of the most demanding wafer fabs in the world. And our combined expertise allows us to quickly adapt products to meet new process requirements.



"Silk" structure, 10µm

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