

SCProbond™ N materials Quality outperforming competition

GreenEco – exclusive representative of Silicon Carbide Products

All materials in the photos below are Ni-bonded Silicon Carbides. Unlike metals and their alloys, there are no standardized industry specifications for the SiC products; This makes the qualitative comparison of products from different manufacturers extremely difficult, if not impossible.

Due to the wide range of compositions, densities, manufacturing techniques and the level of experience of a specific manufacturer, means that not only the consistency, but also the mechanical and chemical properties of the silicon carbide products may differ significantly for products from different suppliers. This is why choosing the right supplier is very important, because it determines not only the quality of the product received, but also the quality of the service. The quality of the raw material, product/manufacturing specifications, firing techniques, process control and attention to every detail of the production process determine the quality of the final product and its wear characteristics.

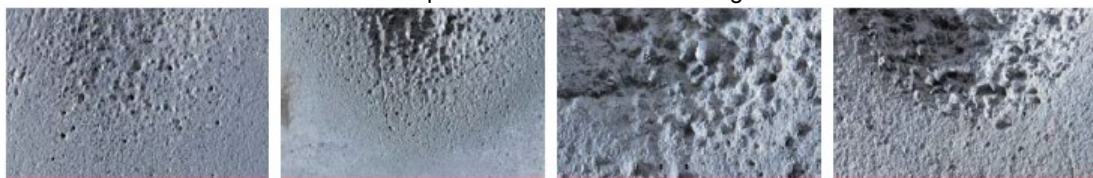
The wear resistance of SCProbond™ N is up to 5+ times higher than comparable competing silicon carbide products.

Thanks to the fact that at SCP we design, develop, improve and manufacture our own silicon carbide materials for the **SCProbond™** production, we can guarantee the excellent quality of our products so that they can meet the requirements of a variety of extreme wear conditions such as abrasive wear, chemical corrosion, high temperatures and thermal shocks.

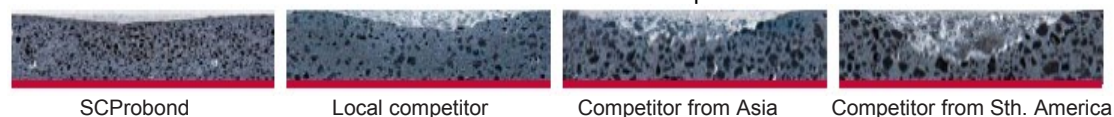
The main advantages of our SCProbond silicon carbide products are:

- Material composition developed by statistical methods.
- The exclusive use of raw materials of a constant, very high quality.
- Own tooling for production and design, including rapid prototyping.
- Control and monitoring of production processes:
 - own proprietary furnace control
 - each client has the special attention of our staff; it relates to both the customer service process and the production process.

Samples surface view after testing

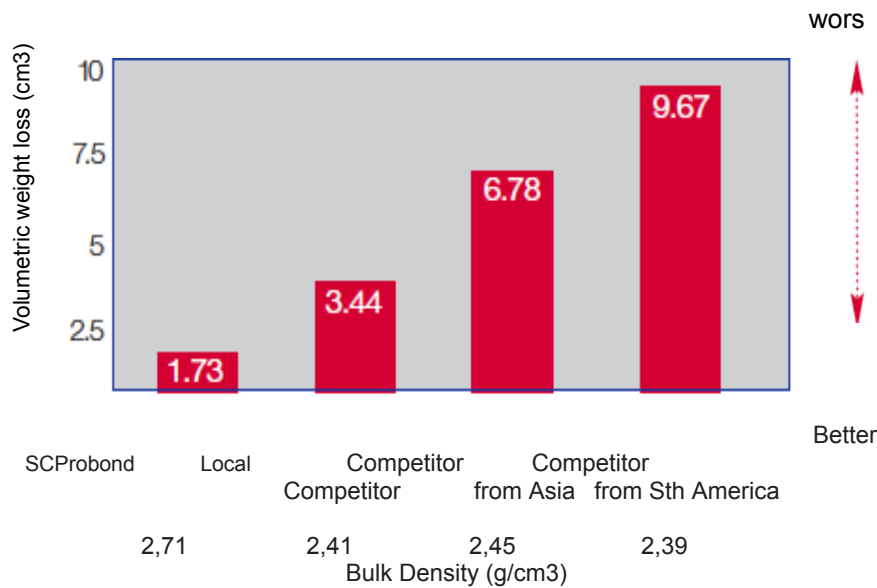


Cross-sections of tested samples



Comparative tests of wear resistance by an independent laboratory

Abrasion resistance was tested for all samples. Erosion tests was done in according to ASTM C704. The higher bulk density of a specific group of materials, which is a direct result of a better recipe, high-quality raw materials and careful process control, including firing, are the factors that lead to higher wear resistance, as illustrated in the diagram.



Relative differences are possible, results may vary slightly. This document is for information purposes only and does not constitute any form of quality guarantee.

Products made of Ni-bonded SiC have exceptionally high resistance to abrasion, corrosion and high mechanical strength.

Thanks to their properties, they are used in virtually every industry, including:

- non-ferrous metallurgy
- power generation,
- chemical, • gas & oil
- mining and minerals processing
- heating devices
- and many other