



MYCROSINT®

BORON NITRIDE SINTERED PARTS

MYCROSINT® is a hot pressed hexagonal Boron Nitride and shows a unique combination of chemical, mechanical and electrical properties.



MYCROSINT® break rings for horizontal continuous casting of steel and nonferrous alloys

Special characteristics

- MYCROSINT® S characteristics depend on a defined amount of boron oxide working as an additive binder to obtain dense boron nitride shapes. MYCROSINT® S offers excellent performance for a wide range of applications.
- MYCROSINT® CD is a hot pressed hexagonal Boron Nitride using a calcium borate as a binder. It is, when compared to MYCROSINT® S, less sensitive to moisture and allows higher application temperatures. Especially hot forming technologies used in glass industry take full advantage of these properties.
- MYCROSINT® HD is a hot isostatically pressed hexagonal Boron Nitride showing isotropic behavior and good physical properties. Because of the

lower boron oxide content it is suitable for applications demanding high purity. ESK recommends MYCROSINT® HD for use in the semiconductor industry and high temperature furnace engineering.

- MYCROSINT® O is a BN-ZrO₂ composite material showing as well as MYCROSINT® SO an increased bending strength. MYCROSINT® O is recommended for casting nozzles and refractory components for nickel and cobalt based alloys and for the aluminium industry.
- MYCROSINT® SO is a BN-ZrO₂-SiC composite material which combines the non-wetting property of Boron Nitride with the extraordinary refractoriness of zirconia and the high wear resistance of Silicon Carbide. It offers

excellent hardness and other wear resistance for molten metal applications. MYCROSINT® SO is our preferred solution for refractory applications in the steel industry

Advantages

- High resistance to molten metals and glass
- Outstanding thermal shock resistance
- Excellent electrical insulation - even at high temperatures
- Application temperature 800 °C in air and 2000 °C in inert atmosphere



Applications

ESK offers machined parts or blanks according to customer specifications for various applications in high performance material processing industry.

MYCROSINT® solids are designed particularly for refractories, e.g. side-dams in thin strip casting process, break rings in horizontal continuous casting, glass forming fixtures like spanner plates used in the production of TV tubes and ceramic firing supports.

Processing

MYCROSINT® Boron Nitride can be easily machined, even to complex shapes and forms by a wide range of conventional cutting technologies like sawing, turning, drilling, milling or ultrasonic assisted machining.

Do not hesitate to contact us if you need any technical advice. Our specialists will help you to find the best machining conditions. Please note following recommendations:

- Do not use a coolant or lubrication in the machining of Boron Nitride.
- To control dust release we recommend the use of an auxiliary vacuum system at the tool.

Storage

MYCROSINT® Boron Nitride should be stored in original shipment packaging until use.

Safety

Boron Nitride is not classified as hazardous by relevant regulations.

Detailed safety information is contained in each material data safety sheet, which can be obtained from our sales offices.