










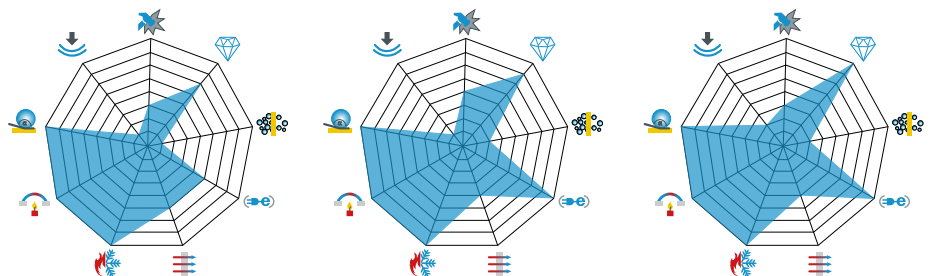
HeBoSint® PURE LINE

Pure with high thermal performance

Our **HeBoSint® PURE LINE** materials have a particularly high degree of purity and a boron nitride content of more than 98.5%. The specific material properties of boron nitride, such as high temperature resistance, good thermal conductivity, low thermal expansion, excellent thermal shock resistance and very good lubrication properties, are extremely well-developed. **HeBoSint® PURE LINE** can be used under inert gas at temperatures in excess of 2000 °C. This makes it the first choice, e.g. for plasma systems and high-temperature furnace construction.

	HeBoSint® PL 100*	HeBoSint® PL 200	HeBoSint® PL 600
Binder	none	none	none
Composition	hBN	hBN	hBN
Typical Density [g/cm³]	1.9	2.0	1.95
Direction Dependence	anisotropic	anisotropic	anisotropic
Thermal Properties			
Pressing Direction	⊥	⊥	⊥
Specific Heat at 20 °C [J/gK]	0.5	0.8	0.8
Thermal Conductivity at 20 °C [W/mK]	20 30	21 29	23 28
Thermal Expansion [10⁻⁶/K] RT - 1500 °C	1.0 0.5	1.0 0.5	0.8 0.4
Use Temperature max. at °C - Oxidizing Atmosphere - Inert Atmosphere / Vacuum Atmosphere	~ 900 ~ 2000	~ 900 ~ 2000	~ 900 ~ 2000
Electrical and Mechanical Properties			
Orientation of Platelets	⊥	⊥	⊥
Specific Electrical Resistivity [Ohm cm]	> 10 ¹²	> 10 ¹⁵	> 10 ¹⁵
Bending Strength [MPa]	8 10	4 6	17 21
Young's Modulus [GPa]	20 23	12 12	20 50
Compressive Strength [MPa]	23 22	23 23	50 40

-  Wear resistance
-  Purity
-  Low permeability
-  Electrically insulation
-  Thermal conductivity
-  Thermal shock resistance
-  Low thermal expansion
-  Non-wetting behavior
-  Mechanical properties



* Discolorations can occasionally be seen in the material. This has no adverse effect on the material properties. The data quoted in this leaflet are typical for the material. They are intended as a guide only and should not be used in preparing detailed specifications. Actual product data may deviate from the figures given. We reserve the right to alter product data within the scope of technical progress and new developments. Since processing involves factors that are beyond our control, recommendations made in this leaflet should be checked by preliminary trials, especially for third party applications. These recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, from clarifying the situation.