

	PURE LINE pure with high thermal performance			CLASSIC LINE reliable and versatile		STRONG LINE for high mechanical loadings			
	HeBoSint® PL 100*	HeBoSint® PL 200	HeBoSint® PL 600	HeBoSint® CL 100	HeBoSint® CL-Z 200	HeBoSint® SL-Z 100	HeBoSint® SL-N 300	HeBoSint® SL-A 400	
Binder	none	none	none	Calcium Borate	none	none	none	Calcium Borate	
Composition	hBN	hBN	hBN	hBN	hBN+SiC+ZrO ₂	hBN+SiC+ZrO ₂	BNSiAlON	hBN+AlN	
Typical Density [g/cm³]	1.9	2.0	1.95	1.9	2.3	2.9	2.3	2.45	
Direction Dependence	anisotropic	anisotropic	anisotropic	anisotropic	anisotropic	anisotropic	anisotropic	anisotropic	
Thermal Properties									
Pressing Direction	⊥	⊥	⊥	⊥	⊥	⊥	⊥	⊥	
Specific Heat at 20 °C [J/gK]	0.5		0.8		0.6		0.7		-
Thermal Conductivity at 20 °C [W/mK]	20 30	21 29	23 28	33 35	28 45	28 38	27 45	65 75	
Thermal Expansion [10⁻⁶/K] RT - 1500 °C	1.0 0.5	1.0 0.5	0.8 0.4	4.0 3.0	4.5 3.0	8.0 4.0	4,6 2,5	5.6 5.4	
Use Temperature max. at °C - Oxidizing Atmosphere - Inert Atmosphere / Vacuum Atmosphere	~ 900 ~ 2000		~ 900 ~ 2000		~ 900 ~ 1500		~ 900 ~ 1800		~ 900 ~ 1600
Electrical and Mechanical Properties									
Orientation of Platelets	⊥	⊥	⊥	⊥	⊥	⊥	⊥	⊥	
Specific Electrical Resistivity [Ohm cm]	> 10 ¹²		> 10 ¹⁵		> 10 ¹²		> 10 ¹⁵		> 10 ¹⁵
Bending Strength [MPa]	8 10	4 6	17 21	35 40	40 70	80 120	95 120	80 105	
Young's Modulus [GPa]	20 23	12 12	20 50	25 30	20 35	30 45	30 45	40 60	
Compressive Strength [MPa]	23 22	23 23	50 40	60 52	105 88	170 170	315 270	190 185	

* 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.
Henze BNP AG . Phone: +49 8374.589 97-0 . Fax: +49 8374.589 97-99 . info@henze-bnp.de . www.henze-bnp.de