

	PURE LINE pure with high thermal performance			CLASSIC LINE reliable and versatile			STRONG LINE for high mechanical loadings								
	HeBoSint® D100	HeBoSint® P100*	HeBoSint® P500	HeBoSint® C100	HeBoSint® O120	HeBoSint® O820	HeBoSint® O140	HeBoSint® A400							
Binder	none	none	none	Calcium Borate	none	none	Boric Oxide	Boric Oxide / Calcium Borate							
Composition	hBN	hBN	hBN	hBN	hBN+SiC+ZrO ₂	hBN+SiO ₂	hBN+SiC+ZrO ₂	hBN+AlN							
Typical Density [g/cm³]	2.0	1.9	1.95	1.9	2.3	2.1	2.9	2.5							
Direction Dependence	isotropic	anisotropic	anisotropic	anisotropic	anisotropic	anisotropic	anisotropic	anisotropic							
Thermal Properties															
Pressing Direction		⊥		⊥		⊥		⊥		⊥					
Specific Heat at 20 °C [J/gK]	0.6	0.5	0.8	0.6	0.6	0.8	0.6	none							
Thermal Conductivity at 20 °C [W/mK]	25	20	30	23	28	33	35	28	45	10	30	28	38	65	75
Thermal Expansion [10⁻⁶/K] RT - 1500 °C	3.0	1.0	0.5	0.8	0.4	4.0	3.0	4.5	3.0	3.0	0.1	8.0	4.0	5.6	5.4
Use Temperature max. at °C - Oxidizing Atmosphere - Inert Atmosphere - Vacuum Atmosphere	~ 900 ~ 2300 < 2300	~ 900 ~ 2300 < 2300	~ 900 ~ 2300 < 2300	~ 900 ~ 1600 ~ 1600	~ 900 ~ 1800 ~ 1800	~ 900 ~ 1500 ~ 1500	~ 900 ~ 1800 ~ 1800	~ 900 ~ 1600 ~ 1600	~ 900 ~ 1600 ~ 1600						
Electrical and Mechanical Properties															
Orientation of Platelets		⊥		⊥		⊥		⊥		⊥					
Specific Electrical Resistivity [Ohm cm]	> 10 ¹²	> 10 ¹²	> 10 ¹⁵	> 10 ¹²	> 10 ¹²	> 10 ¹⁴	> 10 ¹²	> 10 ¹⁵	> 10 ¹²	> 10 ¹⁵					
Bending Strength [MPa]	20	8	10	17	21	35	40	40	70	35	65	80	120	80	105
Young's Modulus [GPa]	23	20	23	20	50	25	30	20	35	75	85	30	45	40	60
Compressive Strength [MPa]	35	23	22	50	40	60	52	105	88	130	50	170	170	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.

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