For molten metal

Si_3N_4(Silicon Nitride) Materials

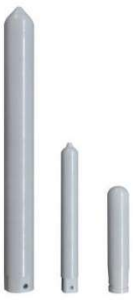
Characteristics

・Si_3N_4 resists the thermal shock and endures rapid heating, quenching.

・By the thermal expansion that matched Si, Si_3N_4 prevent the transformation of the wafer by the temperature change.

・Si_3N_4 show power in molten metal connection.

	Type	H-200	H-300
Thermal Conductivity	W/m・K(RT)	28	32
Coefficint of thermal expantion	10^{-6}/℃(RT～400℃)	3.4	3.5
Heat radiation rete	J/(g・k)	0.65	0.65
Insulation resistance	Ω・cm(RT)	$>10^{14}$	$>10^{14}$
Bending strength	MPa	750	1050
Young's modulus	Gpa	280	290
Poisson's ratio		0.28	0.28
Density	g/cm^3	3.2	3.2
Water absorption	%	0	0
Vickers hardness	Gpa	15	15
Destruction toughness	Mpa・m1/2	6.5	7
Heat shock temperature	℃	800	900
Maximum temperature	℃	1150	1150



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