


# Material data sheet

## SNI750



Description	
<b>Description</b>	SNI750 is gas-pressure-sintered silicon nitride. This ceramic is resistant to thermal shock and has very high mechanical strength. SNI750 is comparatively insensitive to impacts and welding spatter, and metals have little tendency to adhere.
<b>Common applications</b>	SNI750 is particularly used in welding and soldering applications. The material is a good choice whenever sudden changes of temperature occur or adhesion of weld spatter needs to be avoided.
<b>Production options</b>	Round components up to Ø 150 mm, flat components up to an edge length of 300 mm, drilled holes from Ø 0.3 mm, female threads from M4, tolerances in the micron range, polished surfaces, cylindrical grinding, surface grinding, 5-axis simultaneous grinding, wall thicknesses

Industries
Welding Soldering Metalworking Medical technology Induction hardening Heat treatment Mechanical engineering Medical technology

General properties		
<b>Colour</b>		Grey-black
<b>DIN designation</b>		SSN
<b>Chemical composition</b>		Si <sub>3</sub> N <sub>4</sub>
<b>Density</b>	g/cm <sup>3</sup>	3.18–3.3
<b>Open porosity</b>		0

Mechanical properties		
<b>Transverse rupture</b>	MPa	670
<b>Compressive strength</b>	MPa	3000
<b>Modulus of elasticity</b>	GPa	290

Electrical properties		
<b>Volume resistivity</b>	Ω cm	> 10 <sup>14</sup>
<b>Electric strength</b>		
<b>Dielectric constant at 25 °C and 1 GHz</b>		

Thermal properties		
<b>Max. service temperature (in air)</b>	°C	1200
<b>Coefficient of linear expansion</b>	10 <sup>-6</sup> K <sup>-1</sup>	1.4
<b>Thermal conductivity at 20 °C</b>	W/mK	24

The preliminary remark to DIN 40685 applies analogously to the property values given in the table, whereby the values provided here only apply to the test specimens on which they were measured. All information reflects our current knowledge and is subject to change without notice. Its applicability to other geometries is not assured. In other words, the values given here are merely intended as a guide.

### Special materials:

Are you looking for a precision component made of a specific ceramic? Contact us for more information! Since every production step is traceable, we can also process and procure special materials according to each customer's specifications.