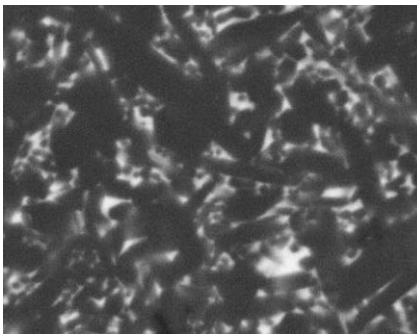




# Ksialon

## Silicon nitride-based ceramic



Typical microstructure

### Main properties

- High strength
- High toughness
- High temperature stability
- Very high thermal shock resistance
- Corrosion resistance to non-ferrous metals

### Applications

- Structural parts for machinery
- Welding pins
- Welding rolls
- Gas nozzles
- Riser tubes (foundries)

### Physical properties

Parameters	Units	Value
Density	g/cm <sup>3</sup>	3.2
Flexural Strength	MPa	900
Fracture toughness	MPa·√m	7.0
Young Modulus	GPa	280
Thermal conductivity	W/m·k	25
Thermal Expansion Coefficient (20-1000°C)	10 <sup>-6</sup> K <sup>-1</sup>	3.5
Maximum use temperature	°C	1100
Electrical resistivity	Ω·cm	>10 <sup>12</sup>
Weibull modulus	-	15

\*All properties measured at 20°C unless otherwise stated