

STARCERAM® AM-SI

May 2025

Material Type: Reaction-bonded silicon carbide (SiSiC), additive manufacturing

MECHANICAL AND PHYSICAL PROPERTIES OF THE MATERIAL (TYPICAL)

Properties	Standard	Specification	Unit	Value
Density (ρ_b)	DIN EN ISO 18754		[g/cm ³]	3.00 ± 0.03
Bending strength ($\sigma_{f,4}$)	DIN EN 843-1	Four-Point-Bending	[MPa]	190
Weibull modulus (m)	EN ISO 20501		[-]	13
Young's modulus of Elasticity (E)	EN 843-2	Ultrasound	[GPa]	350
Poisson's ratio (μ)	EN 843-2	Ultrasound	[-]	0.19
Electrical conductivity (EC)		20°C 4-wire measurement	[10 ⁻³ MS·m]	10
Microstructure SiC content			[%]	75-80
Typical colour			[-]	Grey

The values and information contained in this document are based on our current state of knowledge and are provided without any representation or warranty as to specific properties, completeness, accuracy, or suitability for a particular purpose. The stated values are derived from typical test samples under laboratory conditions and may vary depending on design, shape, manufacturing process, and application. Prior to any use, it is the sole responsibility of the user to determine whether the material is suitable for the intended purpose and to conduct any necessary corresponding tests.

We reserve the right to modify this document and the values contained herein without prior notice. Liability claims are excluded, unless mandatory statutory provisions, particularly in cases of death, bodily injury, intent, or gross negligence, prohibit a more extensive limitation of liability.