

SIGRAFINE® R4510

Material: Graphite
Forming: Isostatically pressed
Application: Continuous casting

Material data of SIGRAFINE® R4510

Typical properties	Units	Test standards	Values*
Average grain size	µm	ISO 13320	10
Bulk density	g/cm ³	DIN IEC 60413/204	1.83
Open porosity	Vol. %	DIN 66133	10
Medium pore entrance diameter	µm	DIN 66133	1.8
Coefficient of permeability (ambient temperature)	cm ² /s	DIN 51935	0.06
Rockwell hardness HR _{5/100}		DIN IEC 60413/303	85
Resistivity	µΩm	DIN IEC 60413/402	12
Flexural strength	MPa	DIN IEC 60413/501	60
Compressive strength	MPa	DIN 51910	130
Dynamic modulus of elasticity	MPa	DIN 51915	11.5 x 10 ³
Thermal expansion (20 - 200 °C)	K ⁻¹	DIN 51909	4.2 x 10 ⁻⁶
Thermal conductivity (20 °C)	Wm ⁻¹ K ⁻¹	DIN 51908	110
Ash content	ppm	DIN 51903	200

* Typical average values of different rectangular and round block sizes. The actual individual block values might vary depending on dimension and format. For any engineering/design purposes please always contact our technical sales team.



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