

SIGRAFINE® R4650

Material: Graphite
Forming: Isostatically pressed
Application: Continuous casting

Material data of SIGRAFINE® R4650

| Typical properties | Units | Test standards | Values* |
|---|----------------------------------|-------------------|------------------------|
| Average grain size | µm | ISO 13320 | 7 |
| Bulk density | g/cm ³ | DIN IEC 60413/204 | 1.84 |
| Open porosity | Vol. % | DIN 66133 | 10 |
| Medium pore entrance diameter | µm | DIN 66133 | 1.1 |
| Coefficient of permeability (ambient temperature) | cm ² /s | DIN 51935 | 0.02 |
| Rockwell hardness HR _{5/100} | | DIN IEC 60413/303 | 95 |
| Resistivity | µΩm | DIN IEC 60413/402 | 14 |
| Flexural strength | MPa | DIN IEC 60413/501 | 65 |
| Compressive strength | MPa | DIN 51910 | 150 |
| Dynamic modulus of elasticity | MPa | DIN 51915 | 12.5 x 10 ³ |
| Thermal expansion (20 - 200 °C) | K ⁻¹ | DIN 51909 | 4.1 x 10 ⁻⁶ |
| Thermal conductivity (20 °C) | Wm ⁻¹ K ⁻¹ | DIN 51908 | 100 |
| 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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TDS R4650.00

04 2019/0 E Printed in Germany
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