

# SIGRAFINE® HLM

**Material:** Graphite

**Forming:** Extruded

**Application:** Industrial and electronic applications

## Material data of SIGRAFINE® HLM

Typical properties	Units	Test standards		Ø 3 ... Ø 10 in	Ø 12 ... Ø 30 in □ 20 ... in
Bulk density	g/cm <sup>3</sup>	ASTM C559		1.75	1.72
Max. grain size	in	DIN 66165		0.03	0.03
Open porosity	Vol. %	ASTM C604		15	16
Resistivity	10 <sup>-5</sup> Ωin	ASTM C611		28	31
			⊥	39	37
Dynamic modulus of elasticity	10 <sup>6</sup> psi	ASTM C747		1.6	1.2
			⊥	1.0	1.0
Flexural strength (4 points)	psi	ASTM C651		3340	2760
			⊥	2300	2760
Compressive strength	psi	ASTM C695		6670	5800
			⊥	6090	5650
Tensile strength	psi	DIN 51914		2470	1810
			⊥	1600	1810
Thermal expansion (20 – 200 °C)	10 <sup>-6</sup> K <sup>-1</sup>	DIN 51909		2.6	3.0
			⊥	4.0	3.5
Thermal conductivity (20 °C)	Wm <sup>-1</sup> K <sup>-1</sup>	DIN 51908		190	160
			⊥	130	140
Ash content	%	DIN 51903		0.08	0.08

|| parallel to the grain direction; ⊥ perpendicular to the grain direction.

For any engineering/design purposes please always contact our technical sales team.



**Graphite Solutions | SGL CARBON GmbH**

Sales Europe/Middle East/Africa | [gs-europe@sglcarbon.com](mailto:gs-europe@sglcarbon.com)

Sales Americas | [gs-americas@sglcarbon.com](mailto:gs-americas@sglcarbon.com)

Sales Asia/Pacific | [gs-asia@sglcarbon.com](mailto:gs-asia@sglcarbon.com)

[www.fine-grain-graphites.com](http://www.fine-grain-graphites.com) | [www.sglcarbon.com](http://www.sglcarbon.com)

**TDS HLM1101\_US.01**

05 2021/0 1NÄ Printed in Germany

®registered trademarks of SGL Carbon SE

This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should therefore not be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Any existing industrial property rights must be observed. The quality of our products is guaranteed under our "General Conditions of Sale".