

# SIGRATHERM<sup>®</sup> L and LN

## Lightweight graphite board for thermal management

SIGRATHERM L lightweight graphite board is a homogeneous, binder-free material made from expanded natural graphite. It has a good thermal and electrical conductivity, is lightweight, compressible, chemical resistant and non-flammable.

Particularly the high thermal conductivity enables SIGRATHERM L to be used in thermal management systems in a number of applications in various markets. It provides excellent temperature distribution across the surface. Due to its high compressibility various thermo-dynamic structural components can be embedded into the material.

Successful implementations are found in thermal energy storage (heat or cold) for automotive or food processing applications. SIGRATHERM L is thereby used as absorbable foam structure for PCM (Phase Change Material). This enables faster charging and discharging cycles being leakproof.

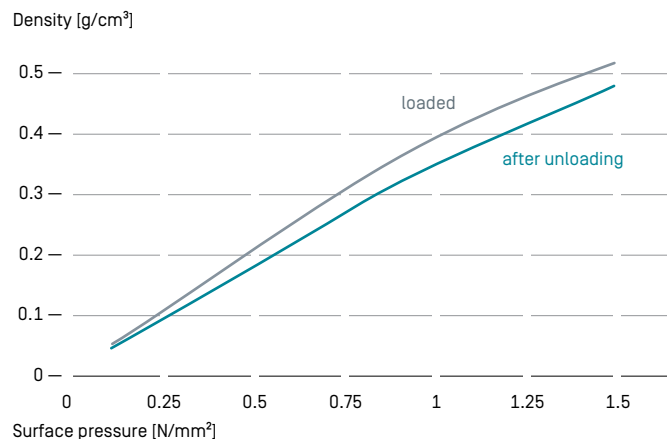
A wide range of electronic cooling applications as well as power devices benefit from SIGRATHERM's excellent material properties, as well as applications in the field of electrical conductivity enhancement.



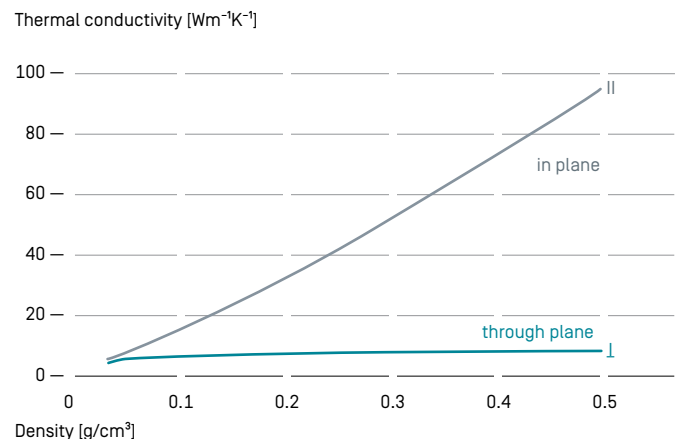
↑ SIGRATHERM L lightweight graphite board

SIGRATHERM L lightweight graphite boards are available in various dimensions and area weights and are supplied in sheet form. Low contents of halogens and sulphur of less than 200 ppm each avoid corrosion caused by impurities as good as possible.

### Typical density of SIGRATHERM L as a function of compression



### Typical thermal conductivity of SIGRATHERM L as a function of density



## Material data of SIGRATHERM® L lightweight graphite board

Typical properties	Units	L10/750	L15/750	L15/1000	L20/1000	L20/1500	L30/1500
Thickness	mm	10	15	15	20	20	30
Length	mm	400 – 3000	400 – 3000	400 – 3000	400 – 3000	400 – 3000	400 – 3000
Width	mm	300 – 1290	300 – 1290	300 – 1290	300 – 1290	300 – 1290	300 – 1290
Area weight	g/m <sup>2</sup>	750	750	1000	1000	1500	1500
Density	g/cm <sup>3</sup>	0.075	0.05	0.067	0.05	0.075	0.05
Carbon content	%	> 95	> 95	> 95	> 95	> 95	> 95

Other dimensions and combinations on request. Please contact us.

SIGRATHERM LN lightweight laminated graphite board is a SIGRATHERM L board that has been laminated to a fleece (non woven). As a result the lightweight board is more stable and easier to handle.

## Material data of SIGRATHERM® LN lightweight laminated graphite board

Typical properties*	Units	LN15/750
Thickness	mm	15
Length	mm	400 – 3000
Width	mm	400 – 1290
Area weight	g/m <sup>2</sup>	750
Density	g/cm <sup>3</sup>	0.05
Carbon content	%	> 95

\* referring to graphite sheet (without fleece)

Other dimensions and combinations on request. Please contact us.



↑ SIGRATHERM LN lightweight laminated graphite board

Unless stated otherwise, all values are valid at room temperature, typical, non-binding and subject to change. For any engineering/design purposes please always contact our technical sales team.



Graphite Materials & Systems | SGL CARBON GmbH | SGL Technic LLC  
 Sales Europe/Middle East/Africa | sigraflex-europe@sglcarbon.com  
 Sales Americas | sigraflex-americas@sglcarbon.com  
 Sales Asia/Pacific | sigraflex-asia@sglcarbon.com  
 www.expandedgraphite.com | www.sglcarbon.com

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