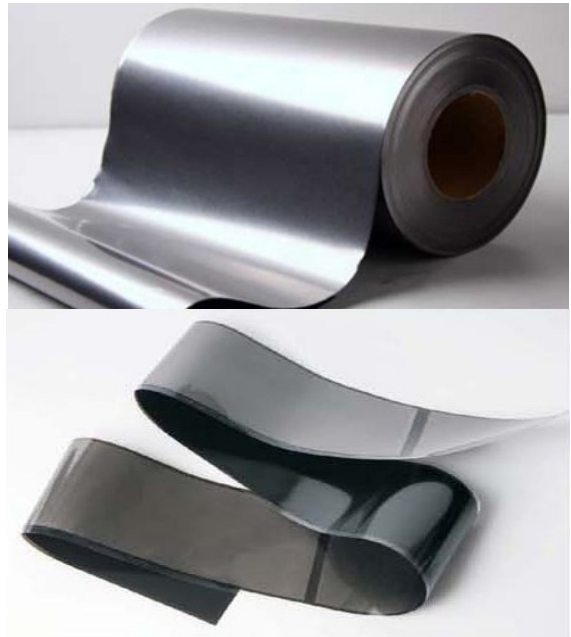


Graphite Film

Thermal and electrical conductivity of graphite is very high - four times higher than stainless steel, two times higher than carbon steel, 100 times more than the average of high non-metallic products. Generally it is a silicone-free and not metallic material. At very high temperatures, the graphite tends to adiabatic condition. Accordingly, in the ultra high temperature conditions, the thermal reduction of graphite is very reliable.

Our company offers a number of natural and synthetic graphite films.



Natural Graphite	1-NUC/NGF-08	1-NUC/NGF-13	1-NUC/NGF-20
Composition	Flexible Graphite (>98%)	Flexible Graphite (>98%)	Flexible Graphite (>98%)
Colour	Grey	Grey	Grey
Thickness (mm)	0,08 (±0,02)	0,13 (±0,02)	0,20 (±0,05)
Hardness (Shore A)	85	85	85
Density	1,4 g /cm ³	1,3 g /cm ³	1,3 g /cm ³
Tensile strength	650 psi	650 psi	650 psi
UL Flammability Rating	UL94V0	UL94V0	UL94V0
Operating temperature	-200°C to 400°C	-200°C to 400°C	-200°C to 400°C
Thermal Conductivity (X/Y-axis)	~ 500 W/mK	~ 350 W/mK	~300 W/mK
Thermal Conductivity (Z-axis)	7 - 10 W/mK	7 - 10 W/mK	7 - 10 W/mK
Thermal Resistance (@100psi)	0,09°C-in ² /W	0,16°C-in ² /W	0,2°C-in ² /W
Volume resistivity	11x10 ⁴ ohm-cm	11x10 ⁴ ohm-cm	11x10 ⁴ ohm-cm
Specific Gravity (TML)	0,15%	0,15%	0,23%
Specific Gravity (CVCM)	0,09%	0,09%	0,16%

Synthetic Graphite	1-NUC/SGF-025	1-NUC/SGF-040	1-NUC/SGF-070
Composition	Carbon content 99,9%	Carbon content 99,9%	Carbon content 99,9%
Colour	Grey	Grey	Grey
Thickness (mm)	0,025 (±0,005)	0,04 (±0,008)	0,07 (±0,015)
Hardness (Shore A)	85	85	85
Density	1,7 ~ 2,1 g /cm ³	1,6 ~ 2,0 g /cm ³	1,6 ~ 2,0 g /cm ³
Tensile strength	650 psi	650 psi	650 psi
UL Flammability Rating	UL94V0	UL94V0	UL94V0
Operating temperature	-40°C to 400°C	-40°C to 400°C	-40°C to 400°C
Thermal Conductivity (X/Y-axis)	1100 - 1300 W/mK	1100 - 1300 W/mK	1100 - 1300 W/mK
Thermal Conductivity (Z-axis)	15 - 20 W/mK	15 - 20 W/mK	15 - 20 W/mK
Thermal Resistance (@100psi)	0,08°C-in ² /W	0,09°C-in ² /W	0,19°C-in ² /W
Volume resistivity	11x10 ⁴ ohm-cm	11x10 ⁴ ohm-cm	11x10 ⁴ ohm-cm
Specific Gravity (TML)	0,15%	0,15%	0,15%
Specific Gravity (CVCM)	0,09%	0,09%	0,09%

Ordering Options:		Width of Roll and sheet sizes can be adjusted to customer requirements.
1-NUC/xGF-xxx-A1	-A1 = Pressure Sensitive Adhesive 1 side	
1-NUC/xGF-xxx-A2	-A2 = Pressure Sensitive Adhesive 2 sides	
1-NUC/xGF-xxx-R	-R = Roll (also available with PSA)	
Standard Dimensions:	Sheet:	Roll:
Natural Graphite	225 x 225 mm	L = 100 m / W = 1 m
Synthetic Graphite	225 x 225 mm (max.)	1000 sheets ~ 50,62 m ² (max.)
Customized Parts:	Available upon request - Please contact us for further information. Other material thicknesses are available upon request.	

All technical information and data are based on tests and believed to be accurate but not guaranteed. Nevertheless product testing by the buyers engineering is recommended in order to confirm expected results in the application. Errors and omissions are excepted.

Rev:1.3.4 / 2015-05



Semic Trade, s.r.o., Volutová 2521/18, 158 00 Praha 5
 Telephone: +420 251 625 331, 251 625 332, 251 625 377
 GSM: +420 605 999 994 Fax: +420 251 626 252, 251 626 393



www.semic.cz
semic@semic.cz