

SIGRAFLEX® foil and sheets

Product shelf life

Flexible graphite is made from natural graphite. It is produced by SGL Carbon in Germany and the US in the form of foil on rolls or sheets and marketed worldwide under the trademark SIGRAFLEX. From the beginning of the 1970s SIGRAFLEX foil and sheets have become well-established in a wide variety of applications.

Graphite is one modification of carbon. Its crystal structure consists of planar hexagonal layers of carbon atoms. Graphite is the most stable form of carbon under standard conditions. A transformation into any other modification or form of carbon (e. g. diamond, amorphous carbon) could only be achieved with extremely high energy expenditure (temperature, pressure). For this reason, graphite with a purity of >98% shows no physical aging effect. Furthermore, due to the absence of any binders or fillers, no additional degradation effects can be observed.



↑ SIGRAFLEX graphite foil



↑ Sheet SIGRAFLEX HOCHDRUCK

SIGRAFLEX foil or sheets should be stored in a dry place at a temperature between $-100\text{ }^{\circ}\text{C}$ to $+100\text{ }^{\circ}\text{C}$ [$-150\text{ }^{\circ}\text{F}$ to $+200\text{ }^{\circ}\text{F}$], protected from dirt and damage. If the material becomes wet during storage, it needs to be dried before use. If stored below $0\text{ }^{\circ}\text{C}$ [$32\text{ }^{\circ}\text{F}$] the humidity level should be reasonable to avoid the build-up of ice, which could theoretically damage the structure of the graphite foil. Conditions that allow the growth of mildew should be avoided. Sunlight has no negative effect on the material properties.

The same is valid for SIGRAFLEX metal reinforced sheet material, with the limitation that adhesive bonded material could delaminate after several years, however we have never ever heard or witnessed delamination caused by storage time. Graphite foil with self adhesive backing should be stored at room temperature at a reasonable humidity. Nevertheless sticking behaviour will deteriorate with time.

