

1993

SIGRAFLEX®

50

1972
2022

World novelty SIGRAFLEX® HOCHDRUCK: Adhesive-free graphite gasket sheet with flat stainless-steel reinforcement for highest demands on tightness and mechanics

As early as the 1980ies, the tanged, impregnated graphite gasket sheet SIGRAFLEX® UNIVERSAL had already established itself on the market - as a high-performance product for sealing pipelines and vessels in chemical, petrochemical and power plants, among others.

However, for applications requiring thinner gaskets, used e. g. in valves and pumps, the market at that time also asked for flat steel reinforced graphite sheets. These also have the advantage of being easier to process.

In 1991, SIGRI launched SIGRAFLEX ECONOMY, the first flat stainless-steel reinforced, bonded gasket sheet, which, like UNIVERSAL, is still state-of-the-art today and an important part of our portfolio.

In the next step, the SIGRAFLEX Research and Development team, led by Alfred Hirschvogel, worked on developing a layer bond between graphite and steel in which the adhesive does not lead to a reduction of the maximum permissible gasket stress.

Silvia Mechen in particular concentrated on this task and, after many test series, was finally able to announce success in 1993: The new unique SIGRAFLEX HOCHDRUCK technology was born.

It creates a high-strength adhesive-free layer bond of highly pure graphite and stainless-steel foils. HOCHDRUCK sheets are rated to 250 bar (3,625 psi) and meet the most stringent leak-tightness demands. The flat gaskets are also extremely safe and reliable. HOCHDRUCK is still one of the top products in our portfolio and continues to deliver what its name promises.

Cover page of the SIGRAFLEX HOCHDRUCK technical data sheet of SGL Carbon (Sigr Great Lakes Carbon)



Throughout the 1980s and 1990s, SIGRI's engineers not only worked to create new products with other unique features, but also to further develop existing products in order to offer customers even better performance and service.

A major step was taken with the successful development of a process for sheet printing. In addition, a color logic was defined specifically for this purpose: Each SIGRAFLEX sheet is printed with a different color and also the exact sheet type and can thus be clearly identified. This enables end customers to avoid the use of wrong materials and thus to better prevent accidents.

The 1990s saw changes not only in SIGRAFLEX products but also at SIGRI. Through numerous acquisitions and investments, the company had developed into a group of companies, the SIGRI Group, since 1967. At the beginning of 1989, Hoechst AG took over the group completely.

Hoechst strived for making the SIGRI business more global and gaining more market power. On February 6, 1992, a merger with the U.S. company Great Lakes Carbon Corp. took place: the birth of the newly founded company Sigr Great Lakes Carbon GmbH - SGL Carbon for short - was announced.