

2014

SIGRAFLEX®
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2022

SIGRAFLEX® APX2® HOCHDRUCK: New graphite gasket sheet for high temperature applications

SGL Carbon's most important goal is to offer users real benefits with its products. One cornerstone for achieving this goal is the continuous development and introduction of new sealing products with unique properties. This has set SGL Carbon apart from the competition since the early days of the SIGRAFLEX business.

Great successes have already been achieved in the past with the combination of unique product properties: In the 1980s, for example, Research & Development engineers combined the metal reinforcement of SIGRAFLEX NORMAL with the antistick coating of a SIGRAFLEX STANDARD sheet to create the new gasket sheet SIGRAFLEX UNIVERSAL.

New opportunities arose in the 2000s after the flexible graphite foil SIGRAFLEX APX2, developed at the site in Valencia/CA, USA, was successfully placed on the market due to its best-in-class temperature and oxidation resistance.

Then as now, SIGRAFLEX HOCHDRUCK and HOCHDRUCK PRO were and are very popular products with customers and in high demand due to their excellent tightness and mechanical strength. However, both sheets have their limitations when it comes to application temperature. At that time, European gasket manufacturers and their customers, the plant operators, in particular asked for improved solutions for higher process temperatures.

So, the Sales team in Meitingen discussed the idea of trying to meet these customer requirements by combining two established products again: To use the extremely temperature resistant SIGRAFLEX APX2 foil for producing various proven sheet products. The properties of one combination product proved to be particularly convincing.

In close cooperation with the Meitingen Operations and R&D department and the R&D colleagues in Valencia, a new unique sheet product was created: SIGRAFLEX APX2 HOCHDRUCK, being at the same time the first Meitingen/Valencia or German/US SIGRAFLEX combination product.

Broad Base. Best Solutions. **SGL GROUP**
THE CARBON COMPANY

**Best sealing sheet
design for high-
temperature gaskets**

SIGRAFLEX® APX2 HOCHDRUCK

SIGRAFLEX® APX2 HOCHDRUCK is a brand new multilayer high-strength graphite sealing sheet, specially designed for high-temperature gasket applications.

- Excellent maximum permissible gasket pressure
- Very high temperature and chemical resistance
- High blow-out resistance and mechanical strength
- Operating temperatures from -250 to 580 °C (-418 to 1076 °F) after consulting the manufacturer
- Increased plant availability and process safety

Graphite Materials and Systems
SGL CARBON GmbH
www.sigraflex.com

* registered trademark of SGL Carbon AG

SIGRAFLEX APX2 HOCHDRUCK
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Kaspar Stegmeir operates the robot in the SIGRAFLEX graphite sheet production in Meitingen, Germany, 2014

The sheet combines the outstanding characteristics of both SIGRAFLEX APX2 graphite foil and reinforced sheets manufactured with the unique SIGRAFLEX HOCHDRUCK technology. It is therefore of high-strength and extremely resistant to temperature and oxidation.

Users in the process industry can reliably and safely seal almost their entire range of flat gasket applications with the help of SIGRAFLEX APX2 HOCHDRUCK, which can be used at operating temperatures from $-269\text{ }^{\circ}\text{C}$ to $+580\text{ }^{\circ}\text{C}$ ($452\text{ }^{\circ}\text{F}$ to $+1076\text{ }^{\circ}\text{F}$); depending on the flange design and lifetime expectation.

SIGRAFLEX APX2 HOCHDRUCK is specially designed for sealing joints subject to high mechanical load. The sheet can also be used in all common flange constructions, in pipelines and vessels, for example in chemical and petrochemical industries and in refineries.