



Industrie Service

Flexitallic

Scandinavia Mill
Hunsworth Lane
Cleckheaton
West Yorkshire
BD19 4LN
United Kingdom

The above organization is hereby entitled, on the basis of certificate No. 14 03 9041 002 and the appendant test report, to affix the certification body's certification mark shown below to the following product (see description below).



The product satisfies the following requirements

- "TA-Luft" the German Clean Air Requirements – (leak detection)
- DVWK / TRwS (blow-out resistance)

The product is thus considered to be high-quality in accordance with the above mentioned requirements. The precondition for this is the use of flange systems made of steel which achieve or exceed the minimum stress-to-seal during installation and which are operated below the maximum permissible temperature and the maximum permissible internal pressure. The parameters for this (stress-to-seal, temperature and internal pressure) are given below.

The basis of this approval is the test procedure of TÜV Anlagen- und Umwelttechnik (TÜV plant and environmental technology) and VDI (Association of German Engineers) 2440, here the November 2000 version. This involves testing the performance of flange gaskets with regard to their tightness and observance of specific leak rates in accordance with VDI 2440 [$\lambda \leq 10^{-4}$ mbar x l/(s x m); $\sigma = 30$ MPa; $\Delta p = 1$ bar] and blow-out resistance or, in other words, extended testing of the below mentioned operating conditions. In addition to this, the gasket meets the requirements of the pressure equipment directive (PED) guidelines 97/23/EG.

Product description:

"SIGMA 511" flat gasket (identification colour red) for static use, based on PTFE (Polytetrafluorethylen) with fillers.

gasket thickness, uncompressed:	2 mm
operating pressure:	max. 40 bar
operating temperature:	max. 250 °C
stress-to-seal in the case of VDI 2440:	30 MPa

Note:

The permissible internal pressure decreases as the nominal bore increases while the residual stress-to-seal remains unchanged. Additional pipe forces must not lead to an inadmissible reducing of the stress on the gasket.

This certificate is valid until **March 2017**.
Annual monitoring of production.

Munich, 19 March 2014

TÜV SÜD Industrie Service GmbH
Institute for Plastics

e. g. Schweizer

