

CERTIFICATE

No. 30109110E/MS/20.10.03

In accordance with the VDI Guideline 2440 (edition November 2000) the compliance with the tightness criteria of $1,0 \cdot 10^{-4}$ mbar · l/(m · s) of the gasket type

KLINGERtop chem 2003 DN40/PN40

of the gasket manufacturer

**Rich, Klinger Dichtungstechnik GmbH & Co KG
Am Kanal 8-10, A-2352 Gumpoldskirchen**

was verified in a first-time test under the following test conditions:

initial gasket stress:	30.1	MPa
related to DN40/PN40:	30	MPa
temperature of exposure:	150	°C
period of exposure:	48	h
test pressure (absolute):	1	bar
period of leakage measurement:	24	h

The leak rate measured with the Helium leak detector at the end of the period of the leakage measurement was

$3,29 \cdot 10^{-6}$ mbar · l/(m · s),

therefore the gasket is in compliance with the tightness criteria of VDI 2440. If the design of the sealing system can be expected to permit normal function in the long term in the given operating conditions and the characteristic sealing value as per DIN 28090-1 or prEN 13555, respectively, are observed when choosing and dimensioning the flange connection, the gasket can be regarded as a high-grade sealing system for the purposes of TA-Luft.

This certificate is only valid in combination with the test report 3010913/- dated on 20.10.2003.

Lauffen, 20. Oktober 2003

amtec Meßtechnischer Service GmbH



Dipl.-Phys. M. Schaaf