

CERTIFICATE

No. 30210301E/FH/31.01.11

In accordance with the VDI Guideline 2440 (edition November 2000) the compliance with the tightness criteria of the type of packing set

SPETOPAK® WGR-TA

consisting of 4 planar rings for top and bottom and 2 conically shaped packing rings of graphite/PTFE

of the packing manufacturer

C.S.U.T. SPETECH Sp. z o.o.

ul. Szyprów 17, PL-43-382 Bielsko-Biała

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

prestress:	50	MPa
geometry:	56x40x48	mm
temperature of packing:	250	°C
number of stem cycles:	1000	
stroke:	40	mm
test pressure (absolute):	40	bar
test medium:	Helium	
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

$3.2 \cdot 10^{-3} \text{ mbar} \cdot \text{l}/(\text{s} \cdot \text{m})$,

therefore the packing set is in compliance with the tightness criteria of VDI 2440 of **$1.0 \cdot 10^{-2} \text{ mbar} \cdot \text{l}/(\text{s} \cdot \text{m})$** for tests at a temperature higher and equal 250 °C and 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 3021031/-

Lauffen, January 31, 2011

amtec Messtechnischer Service GmbH



Dipl. Ing. F. Herkert