CERTIFICATE

No. 08/LBMU/08.09.2014

Laboratory
of Sealing Materials
SPETECH Sp. z o.o.

43-382 Bielsko-Biała ul. Szyprów 17, Polska tel. + 48 33 818 41 33 fax. + 48 33 818 46 79 laboratory@spetech.eu www.laboratory.spetech.eu

The packing set:

SPETOPAK® WGR-TA 11

consisting of 3 graphite packing rings, 4 graphite rings and 6 steel foils

of the manufacturer:

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

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





were verified in accordance with the VDI 2440:2000 the compliance with the tightness criteria. The test was performed under the following conditions:

geometry:	40/60/60	mm/mm/mm
pre deformation:	50	MPa
initial packing set stress:	40	MPa
temperature of exposure:	400	°C
absolute test pressure:	40	bar
test medium:	helium	
number of stem cycles:	2000	
stroke:	40	mm
period of leakage measurement:	24	h

The leak rate at the end of the period of the leakage measurement was:

8,79·10⁻³ mbar·l/(m·s)

The requirement of VDI 2440 is, in test temperature, the leakage must be less than $1 \cdot 10^{-2}$ mbar·l/(m·s). Therefore the packing set fulfill that criteria and can be used as a sealing system for the purposes of TA Luft.

This certificate is valid only with the test report No. TALP/20062014/08/LBMU

Bielsko-Biała, September 8th, 2014

M.Sc.Eng. Janusz zajączek