Fachhochschule
Münster University of
Applied Sciences

C S T
FH Münster

Center of Sealing
Technologies

Bürgerkamp 3
D-48565 Steinfurt

Certificate

Z12112901-18

The flat gasket type
GYLON® 3504
of the manufacturer

GARLOCK GmbH
Falkenweg 1
41430 Neuss
Germany

has been tested in compliance with TA Luft in accordance with the VDI-guideline 2200 (2007-06) by the Department of Gasketing Research of the University of Applied Sciences Münster. The test was verified in a first time test with following test conditions:

Initial gasket thickness:	3.2 mm
Test flange:	DN40/PN40, EN1092-1, type B, welding-neck, 1.4571
Initial gasket stress:	30 MPa
Thermal storage temperature:	200 °C
Thermal storage duration:	48 h
Test conditions:	20 °C

The leak rate, measured at 20 °C, with a helium mass spectrometer and a differential pressure of 1 bar resulted in a leak rate of:

$$4.9 \cdot 10^{-5} \frac{mbar \cdot l}{s \cdot m}$$

Residual gasket stress (Q_R): 4.5 MPa

The maximum acceptable leak rate of $1.0 \cdot 10^{-4} \frac{mbar \cdot l}{s \cdot m}$ according to VDI-guideline 2440 (2000-11) has not been exceeded. The above mentioned gasket is in accordance with TA Luft.

The blowout safety test in accordance to VDI-guideline 2200 resulted for

Test step 1 at Q_R:	60 bar, no blowout
Test step 2 at 5 MPa (Q_{Smin}):	not necessary, $Q_R < Q_{Smin}$

This test certificate is only valid in combination with the test report 12112901-18.

Steinfurt, 2014-10-01

Prof. Dr. A. Riedl