CENTER OF SEALING TECHNOLOGIES

FH-Münster
Forschungsbereich Dichtungstechnik
Bürgerkamp 3
D-48565 Steinfurt

Fachhochschule Münster University of Applied Sciences

Certificate

The gasket type **PS Lippenmaterial F** 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 (June 2005) 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:

Seal measurements:	50 mm x 65 mm x 10 mm
Test presentation assembly:	Special assembly with 4x PS Lippenmaterial F and blocking medium (Assembly: see page 2)
Shaft revolution speed:	3 meters per second
Blocking medium:	Barrierta L 55/3 HV

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

$2.7 \cdot 10^{-6} \frac{mbar \cdot l}{s \cdot m}$ measured at standstill after 60 minutes running

$5.3 \cdot 10^{-6} \frac{mbar \cdot l}{s \cdot m}$ measured after 24 hours running

$5.3 \cdot 10^{-7} \frac{mbar \cdot l}{s \cdot m}$ measured after 24 hours standstill

The maximum accepted leak rate of $1.0 \cdot 10^{-4} \frac{mbar \cdot l}{s \cdot m}$ has not been exceeded.

The above mentioned gasket is in accordance with TA Luft.

This test certificate is only valid in combination with the test report 08090501-1.

Steinfurt, 18 August 2009 Prof. Dr. A. Riedl

Accredited by the DAP (German Accreditation System for Testing Stations) by the TÜV SÜD

Testing assembly: