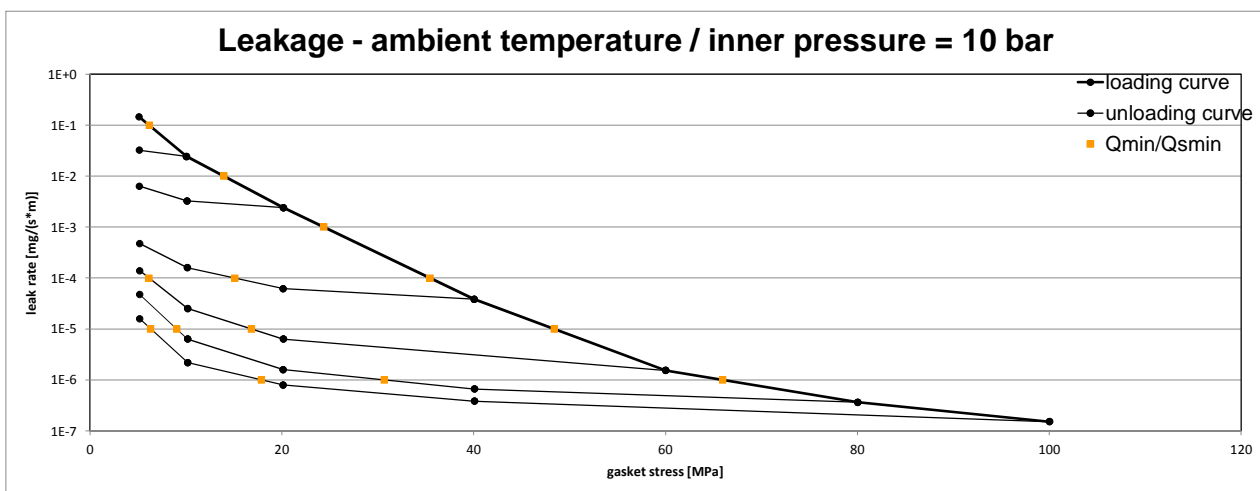
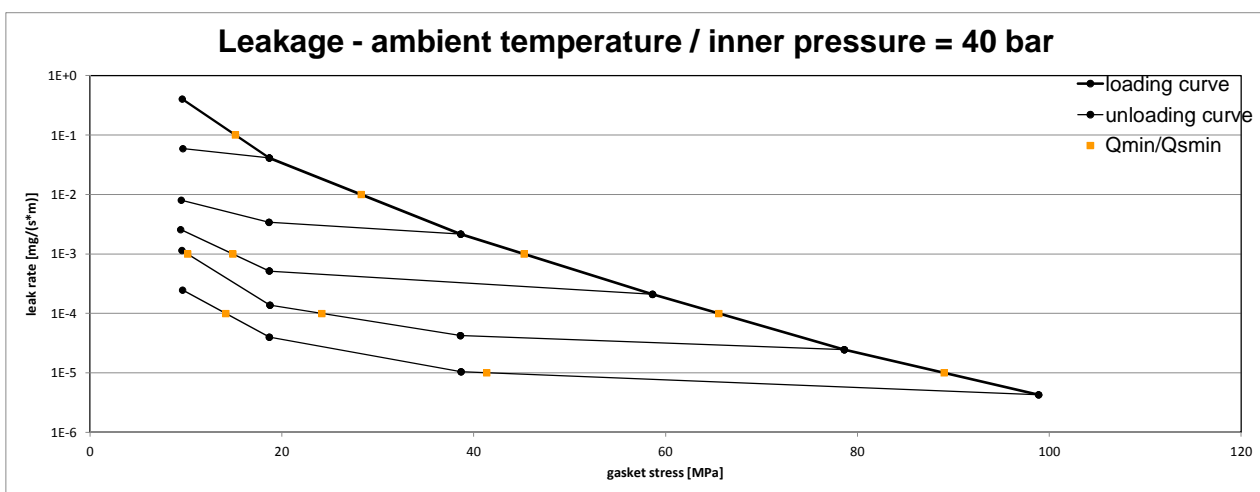


| | |
|---------------------------------|---|
| Company Address | IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany |
| Gasket Type | UNISEAL WS 3400 flat gasket -asbestos-free-, FD01 |
| Sealing element dimensions [mm] | 92 x 49 x 2 |

| L [mg/(s*m)] | Q _{min/L} [MPa] | Q _{Smin/L} [MPa] | | | | | | | | | | | |
|------------------|--------------------------|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--|--|--|--|--|--|
| | | Q _A = 10 MPa | Q _A = 20 MPa | Q _A = 40 MPa | Q _A = 60 MPa | Q _A = 80 MPa | Q _A = 100 MPa | | | | | | |
| 10 ⁰ | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | | | | | |
| 10 ⁻¹ | 6 | 5 | 5 | 5 | 5 | 5 | 5 | | | | | | |
| 10 ⁻² | 14 | | 5 | 5 | 5 | 5 | 5 | | | | | | |
| 10 ⁻³ | 24 | | | 5 | 5 | 5 | 5 | | | | | | |
| 10 ⁻⁴ | 35 | | | 15 | 6 | 5 | 5 | | | | | | |
| 10 ⁻⁵ | 48 | | | | 17 | 9 | 6 | | | | | | |
| 10 ⁻⁶ | 66 | | | | | 31 | 18 | | | | | | |
| 10 ⁻⁷ | | | | | | | | | | | | | |
| 10 ⁻⁸ | | | | | | | | | | | | | |



| L [mg/(s*m)] | Q _{min/L} [MPa] | Q _{Smin/L} [MPa] | | | | | | | | | | |
|------------------|--------------------------|---------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--|--|--|--|--|--|
| | | Q _A = 20 MPa | Q _A = 40 MPa | Q _A = 60 MPa | Q _A = 80 MPa | Q _A = 100 MPa | | | | | | |
| 10 ⁰ | 10 | 10 | 10 | 10 | 10 | 10 | | | | | | |
| 10 ⁻¹ | 15 | 10 | 10 | 10 | 10 | 10 | | | | | | |
| 10 ⁻² | 28 | | 10 | 10 | 10 | 10 | | | | | | |
| 10 ⁻³ | 45 | | | 15 | 10 | 10 | | | | | | |
| 10 ⁻⁴ | 66 | | | | 24 | 14 | | | | | | |
| 10 ⁻⁵ | 89 | | | | | 41 | | | | | | |
| 10 ⁻⁶ | | | | | | | | | | | | |
| 10 ⁻⁷ | | | | | | | | | | | | |
| 10 ⁻⁸ | | | | | | | | | | | | |



Note: the content of darkened cells was not determined respectively is unnecessary Rev - No: 1 Creation date of this sheet: 17.08.2012



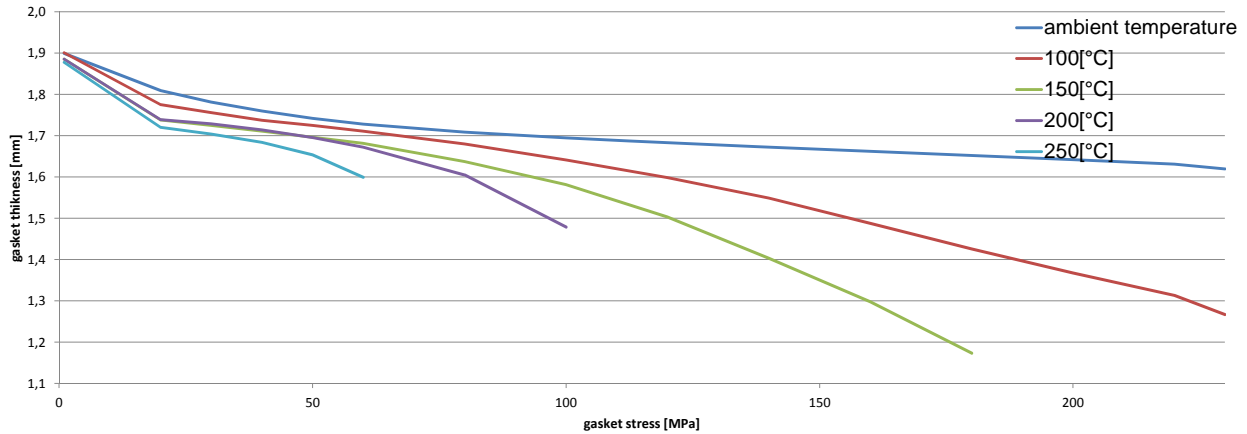
| | |
|---------------------------------|---|
| Company Address | IDT Industrie- und Dichtungstechnik GmbH Werk Kupferring, Gewerbering 6, 09456 Annaberg-Buchholz, Germany |
| Gasket Type | UNISEAL WS 3400 flat gasket -asbestos-free-, FD01 |
| Sealing element dimensions [mm] | 92 x 49 x 2 |

| Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm | | | | | |
|---|---------------------|------------------------|------------------------|------------------------|------------------------|
| Gasket stress [MPa] | ambient temperature | temperature 1 [100 °C] | temperature 2 [150 °C] | temperature 3 [200 °C] | temperature 4 [250 °C] |
| Stress level 1 [30 MPa] | 0,96 | 0,85 | 0,83 | 0,81 | 0,69 |
| Stress level 2 [50 MPa] | 0,97 | 0,91 | 0,84 | 0,77 | 0,70 |
| Stress level 3 [100 MPa] | 0,98 | 0,85 | 0,77 | 0,74 | |
| PQR at Q_{Smax} | 0,99 at 230 MPa | 0,88 at 230 MPa | 0,77 at 180 MPa | 0,74 at 100 MPa | 0,69 at 60 MPa |

| Maximal applicable gasket stress Q_{Smax} | | | | |
|---|--|--|--|--|
| Q_{Smax} [MPa] ambient temperature | Q_{Smax} [MPa] – temperature 1 [100 °C] | Q_{Smax} [MPa] – temperature 2 [150 °C] | Q_{Smax} [MPa] – temperature 3 [200 °C] | Q_{Smax} [MPa] – temperature 4 [250 °C] |
| 230 | 230 | 180 | 100 | 60 |

| Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm] | | | | | | | | | | |
|--|---------------------|------------|------------------------|------------|------------------------|------------|------------------------|------------|------------------------|------------|
| Gasket stress [MPa] | ambient temperature | | temperature 1 [100 °C] | | temperature 2 [150 °C] | | temperature 3 [200 °C] | | temperature 4 [250 °C] | |
| | E_G [MPa] | e_G [mm] | E_G [MPa] | e_G [mm] | E_G [MPa] | e_G [mm] | E_G [MPa] | e_G [mm] | E_G [MPa] | e_G [mm] |
| 0 | | | | | | | | | | |
| 1 | | 1,900 | | 1,901 | | 1,885 | | 1,886 | | 1,878 |
| 20 | 1528 | 1,810 | 1803 | 1,775 | 2230 | 1,738 | 2183 | 1,739 | 2713 | 1,720 |
| 30 | 1839 | 1,782 | 2296 | 1,756 | 2734 | 1,725 | 2920 | 1,729 | 3204 | 1,704 |
| 40 | 2309 | 1,760 | 2757 | 1,738 | 3084 | 1,711 | 3390 | 1,714 | 3132 | 1,684 |
| 50 | 2851 | 1,742 | 3675 | 1,725 | 3334 | 1,696 | 3537 | 1,695 | 3785 | 1,654 |
| 60 | 3501 | 1,728 | 3935 | 1,711 | 4551 | 1,681 | 3943 | 1,673 | 3661 | 1,599 |
| 80 | 4836 | 1,709 | 4852 | 1,680 | 4681 | 1,637 | 4248 | 1,605 | | |
| 100 | 5988 | 1,695 | 5449 | 1,641 | 4976 | 1,581 | 4672 | 1,478 | | |
| 120 | 6928 | 1,683 | 5577 | 1,599 | 5429 | 1,504 | | | | |
| 140 | 7654 | 1,672 | 6394 | 1,549 | 5732 | 1,404 | | | | |
| 160 | 8252 | 1,662 | 6464 | 1,488 | 5981 | 1,298 | | | | |
| 180 | 8616 | 1,652 | 7149 | 1,426 | 5936 | 1,173 | | | | |
| 200 | 9091 | 1,642 | 7573 | 1,368 | | | | | | |
| 220 | 9402 | 1,631 | 7280 | 1,313 | | | | | | |
| 230 | 9083 | 1,619 | 6748 | 1,267 | | | | | | |

Gasket thickness e_G



Note: the content of darkened cells was not determined respectively is unnecessary

Rev - No: 1

Creation date of this sheet:

17.08.2012