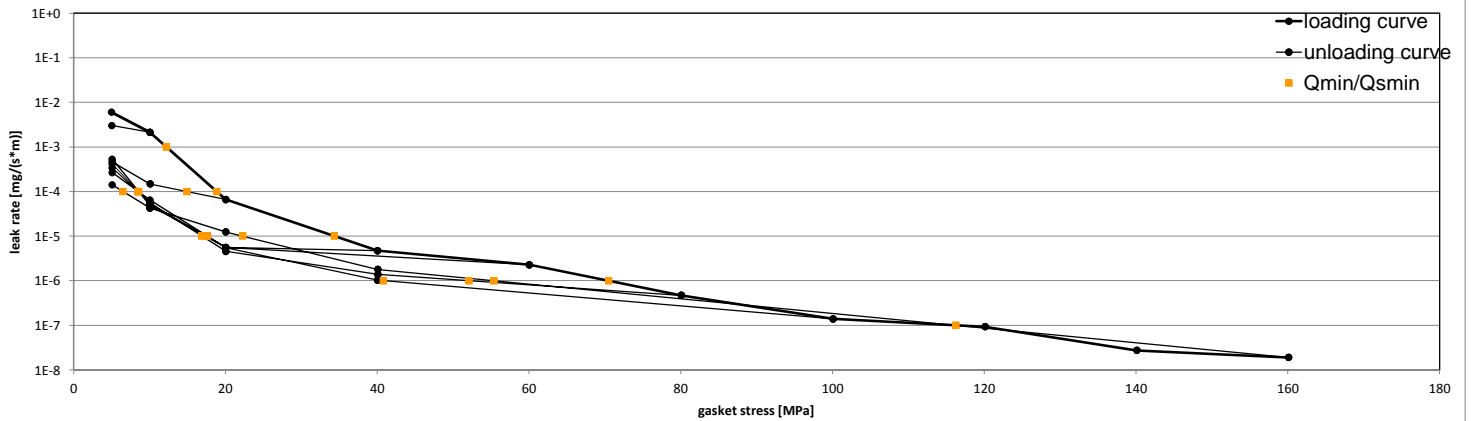


Company Address	Kempchen Dichtungstechnik, Im Waldteich 21, 46147 Oberhausen, Germany
Gasket Type	Corrugated gasket W1A-3 - Graphite (1.4571 / 0,8 mm; D 1,0 g/cm ³)
Sealing element dimensions [mm]	49 x 51 / 86 x 92 x 3 (referring to DIN 1514)

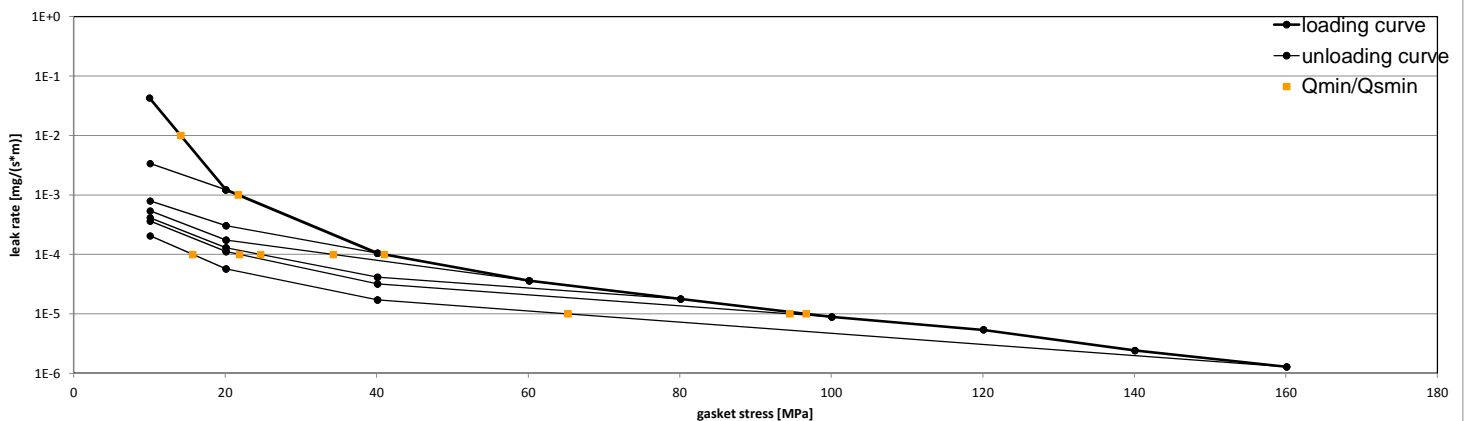
L [mg/(s*m)]	Q _{min/L} [MPa]	Minimum stress to seal Q _{min/L} (at assembly), Q _{Smin/L} (after off-loading) for p = 10 bar								
		Q _{Smin/L} [MPa]								
		Q _A = 10 MPa	Q _A = 20 MPa	Q _A = 40 MPa	Q _A = 60 MPa	Q _A = 80 MPa	Q _A = 100 MPa	Q _A = 120 MPa	Q _A = 140 MPa	Q _A = 160 MPa
10 ⁻⁰	5	5	5	5	5	5	5			5
10 ⁻¹	5	5	5	5	5	5	5			5
10 ⁻²	5	5	5	5	5	5	5			5
10 ⁻³	12		5	5	5	5	5			5
10 ⁻⁴	19		15	9	8	8	9			6
10 ⁻⁵	34			17	17	17	18			22
10 ⁻⁶	70					52	41			55
10 ⁻⁷	116									116
10 ⁻⁸										

Leakage - ambient temperature / inner pressure = 10 bar



L [mg/(s*m)]	Q _{min/L} [MPa]	Minimum stress to seal Q _{min/L} (at assembly), Q _{Smin/L} (after off-loading) for p = 40 bar							
		Q _{Smin/L} [MPa]							
		Q _A = 20 MPa	Q _A = 40 MPa	Q _A = 60 MPa	Q _A = 80 MPa	Q _A = 100 MPa	Q _A = 120 MPa	Q _A = 140 MPa	Q _A = 160 MPa
10 ⁻⁰	10	10	10	10	10	10			10
10 ⁻¹	10	10	10	10	10	10			10
10 ⁻²	14	10	10	10	10	10			10
10 ⁻³	22		10	10	10	10			10
10 ⁻⁴	41			34	25	22			16
10 ⁻⁵	97					95			65
10 ⁻⁶									
10 ⁻⁷									
10 ⁻⁸									

Leakage - ambient temperature / inner pressure = 40 bar



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

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Center of Sealing Technologies, Bürgerkamp 3, 48565 Steinfurt, Germany

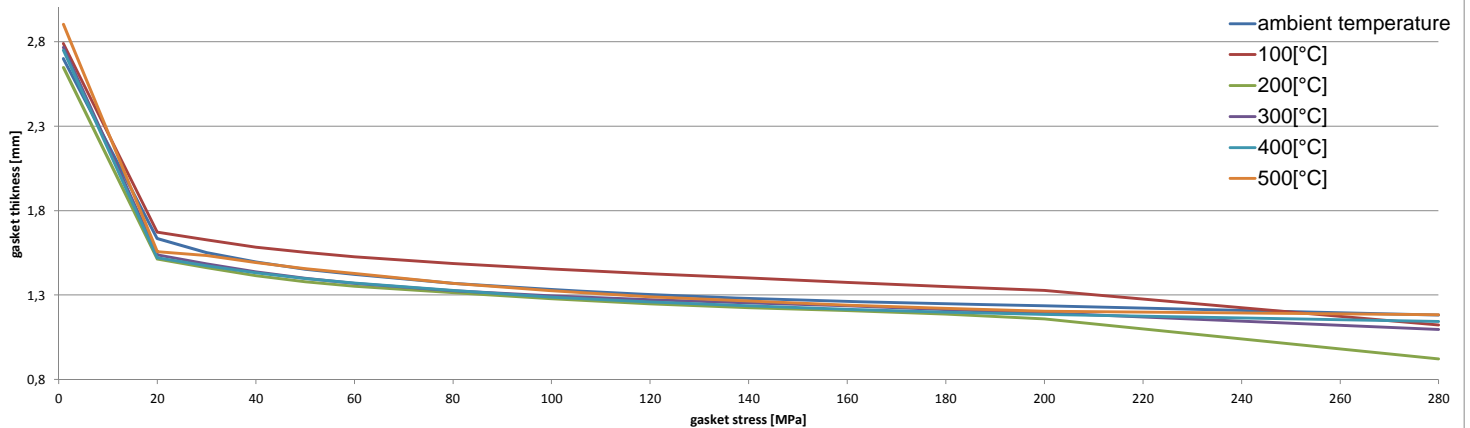
Company Address	Kempchen Dichtungstechnik, Im Waldteich 21, 46147 Oberhausen, Germany
Gasket Type	Corrugated gasket W1A-3 - Graphite (1.4571 / 0,8 mm; D 1,0 g/cm ³)
Sealing element dimensions [mm]	49 x 51 / 86 x 92 x 3 (referring to DIN 1514)

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm						
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [200 °C]	temperature 3 [300 °C]	temperature 4 [400 °C]	temperature 5 [500 °C]
Stress level 1 [30 MPa]	0,99	0,76	0,66	0,59	0,62	0,59
Stress level 2 [50 MPa]	0,99	0,86	0,75	0,72	0,74	0,76
Stress level 3 [90 MPa]	1,00	0,96	0,80	0,84	0,84	0,84
Stress level 4 [180 MPa]	1,00	0,94	0,90	0,89	0,88	0,89
PQR at Q_{Smax}	0,99 at 280 MPa	0,95 at 280 MPa	0,92 at 280 MPa	0,92 at 280 MPa	0,93 at 280 MPa	0,91 at 280 MPa

Maximal applicable gasket stress Q_{Smax}					
Q_{Smax} [MPa] ambient temperature	Q_{Smax} [MPa] – temperature 1 [100 °C]	Q_{Smax} [MPa] – temperature 2 [200 °C]	Q_{Smax} [MPa] – temperature 3 [300 °C]	Q_{Smax} [MPa] – temperature 4 [400 °C]	Q_{Smax} [MPa] – temperature 5 [500 °C]
280	280	280	280	280	280

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]												
Gasket stress [MPa]	temperature 1 [100 °C]		temperature 2 [100 °C]		temperature 3 [200 °C]		temperature 4 [300 °C]		temperature 5 [400 °C]		temperature 6 [500 °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]	E_G [MPa]	e_G [mm]
0												
1		2,699		2,788		2,647		2,766		2,748		2,902
20	892	1,634	1220	1,672	1323	1,514	1776	1,538	2682	1,520	2229	1,557
30	1844	1,550	1336	1,626	1427	1,461	3644	1,484	5024	1,473	6079	1,534
40	2695	1,495	1978	1,584	1831	1,415	8408	1,437	5218	1,431	4335	1,492
50	2209	1,452	2485	1,553	2289	1,379	4430	1,398	5052	1,397	3919	1,456
60	3116	1,422	2255	1,527	3368	1,353	4401	1,368	10464	1,371	6708	1,428
80	3982	1,370	2727	1,486	4323	1,314	6546	1,325	11407	1,327	5305	1,369
100	6273	1,334	5576	1,454	3552	1,278	7623	1,295	10663	1,288	5242	1,325
120	5524	1,303	4184	1,427	3992	1,247	9027	1,272	16073	1,259	6151	1,290
140	7045	1,281	4543	1,402	4953	1,226	10829	1,254	9475	1,236	6424	1,264
160	8015	1,263	4787	1,375	7069	1,207	8472	1,236	8330	1,215	5326	1,240
180	7863	1,247	5998	1,350	7597	1,187	9371	1,214	9720	1,199	6015	1,222
200	9698	1,236	9368	1,327	6064	1,159	13371	1,194	9221	1,185	6234	1,204
280	8389	1,18	10639	1,12	10279	0,92	12186	1,10	8430	1,14	6128	1,18

Gasket thickness e_G



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