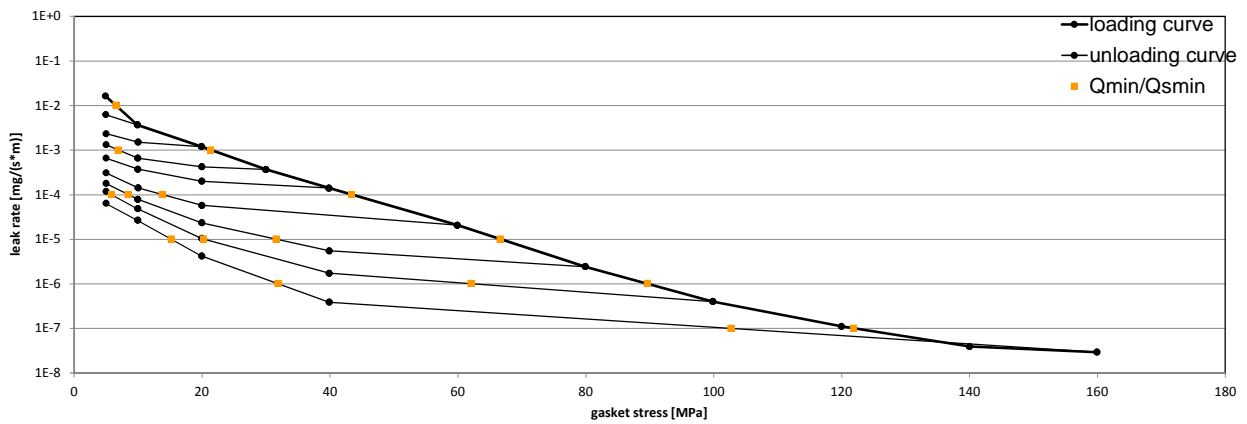


Company Address	SGL Group - The Carbon Company Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to DIN EN 13555 2014-07
Gasket Type	Sigraflex Hochdruck Pro V30011Z3I-P	
Sealing element dimensions [mm]	92 x 49 x 3	

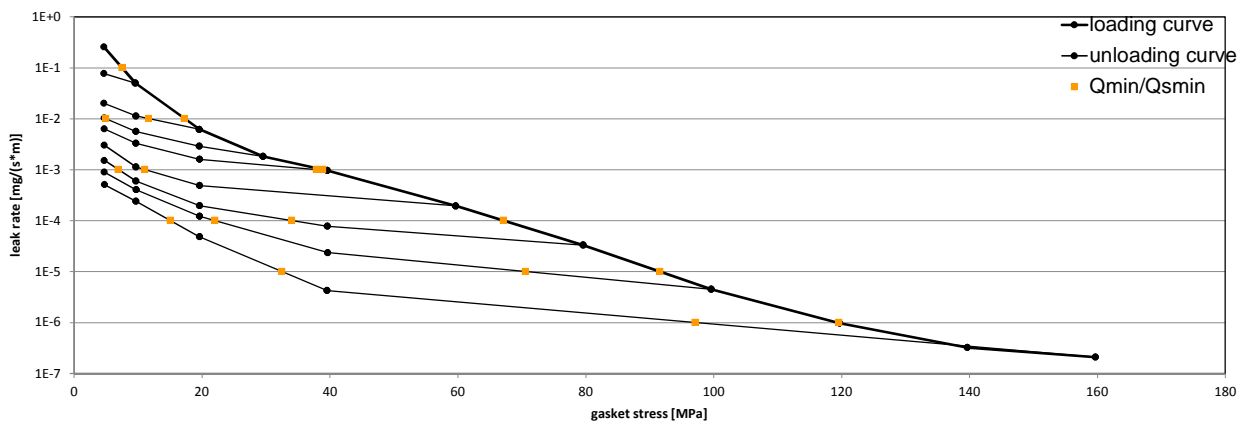
L [mg/(s*m)]	Q _{min/L} [MPa]	Minimum stress to seal Q _{min/L} (at assembly), Q _{Smin/L} (after off-loading) for p = 10 bar									
		Q _{Smin/L} [MPa]									
		Q _A = 10 MPa	Q _A = 20 MPa	Q _A = 30 MPa	Q _A = 40 MPa	Q _A = 60 MPa	Q _A = 80 MPa	Q _A = 100 MPa	Q _A = 120 MPa	Q _A = 140 MPa	Q _A = 160 MPa
10 ⁰	5	5	5	5	5	5	5	5			5
10 ⁻¹	5	5	5	5	5	5	5	5			5
10 ⁻²	7	5	5	5	5	5	5	5			5
10 ⁻³	21			7	5	5	5	5			5
10 ⁻⁴	43					14	8	6			5
10 ⁻⁵	67						32	20			15
10 ⁻⁶	90							62			32
10 ⁻⁷	122										103
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 = 10 MPa	Q _A = 20 MPa	Q _A = 30 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			5
10 ⁻¹	8	5	5	5	5	5	5	5			5
10 ⁻²	17		12	5	5	5	5	5			5
10 ⁻³	39				38	11	7	5			5
10 ⁻⁴	67						34	22			15
10 ⁻⁵	92							71			33
10 ⁻⁶	120										97
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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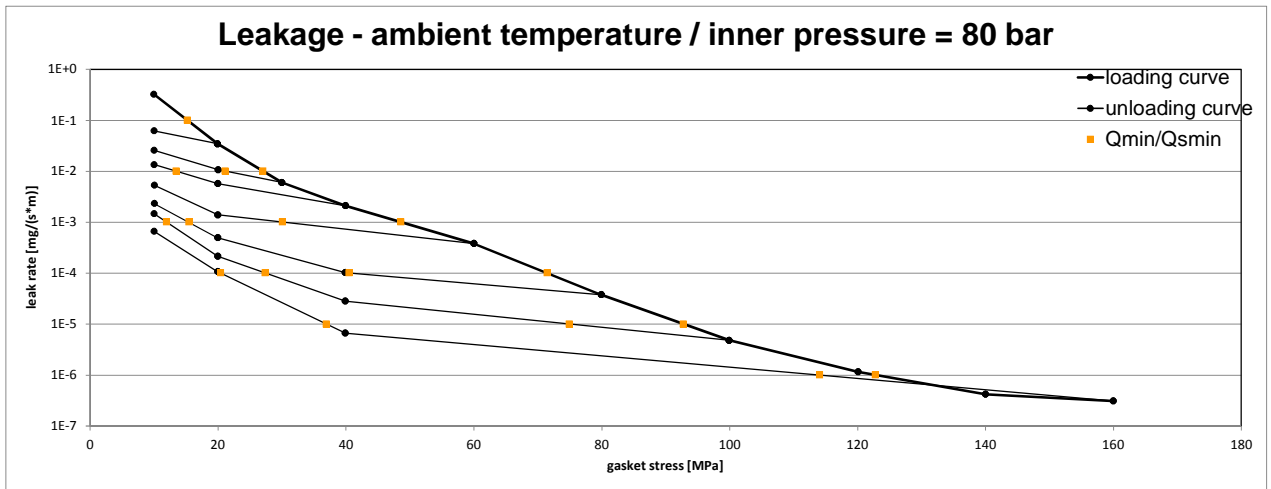
Creation date of this sheet:

2015-05-04



Company Address	SGL Group - The Carbon Company Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to DIN EN 13555 2014-07
Gasket Type	Sigraflex Hochdruck Pro V30011Z3I-P	
Sealing element dimensions [mm]	92 x 49 x 3	

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 = 80 bar									
		Q _{Smin,L} [MPa]									
		Q _A = 20 MPa	Q _A = 30 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	
10 ⁻¹	15		10	10	10	10	10			10	
10 ⁻²	27		21	13	10	10	10			10	
10 ⁻³	49				30	15	12			10	
10 ⁻⁴	71					41	27			20	
10 ⁻⁵	93						75			37	
10 ⁻⁶	123									114	
10 ⁻⁷											
10 ⁻⁸											



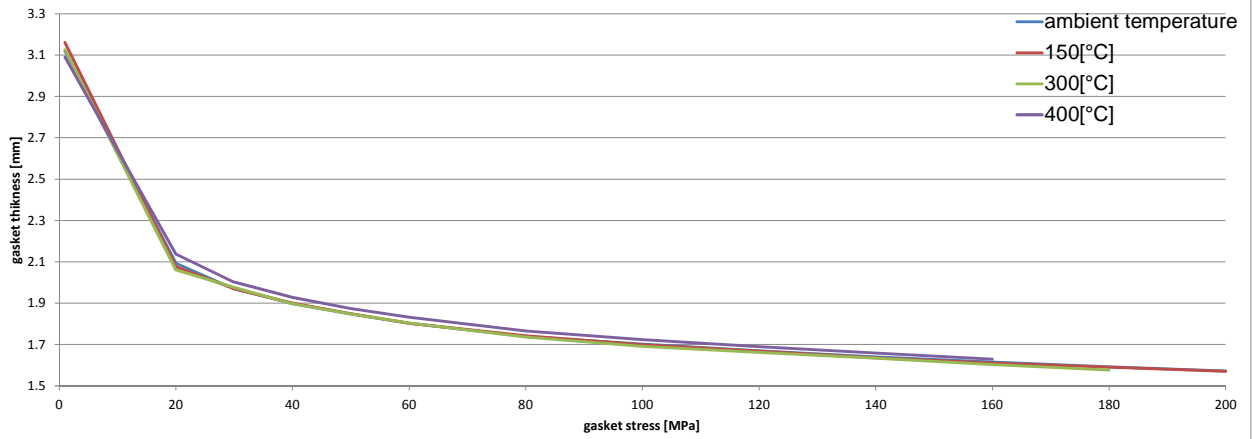
Note: the content of darkened cells was not determined respectively is unnecessary Rev - No: 3 Creation date of this sheet: 2015-05-04

Company Address	SGL Group - The Carbon Company Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to DIN EN 13555 2014-07
Gasket Type	Sigflex Hochdruck Pro V30011Z3I-P	
Sealing element dimensions [mm]	92 x 49 x 3	

Relaxation ratio P_{QR} for stiffness $C = 500 \text{ kN/mm}$										
Gasket stress	ambient temperature		temperature 1 [150 °C]		temperature 2 [300 °C]		temperature 3 [400 °C]		P_{QR}	Δe_{Gc} [mm]
	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]		
Stress level 1 [30 MPa]	0.98	0.006	0.93	0.018	0.91	0.023	0.88	0.030		
Stress level 2 [50 MPa]	0.98	0.008	0.97	0.015	0.94	0.025	0.94	0.027		
P_{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{Smax}										
P_{QR} at Q_{Smax}	1.00	0.000	0.99	0.017	0.98	0.030	0.98	0.034		
Q_{Smax}	200 MPa		200 MPa		180 MPa		160 MPa			

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	ambient temperature		temperature 1 [150 °C]		temperature 2 [300 °C]		temperature 3 [400 °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		3.120		3.161		3.127		3.154		
20	381	2.094	398	2.077	371	2.062	383	2.138		
30	562	1.969	606	1.970	584	1.977	558	2.002		
40	889	1.899	868	1.901	766	1.898	862	1.928		
50	1147	1.848	1120	1.850	1109	1.847	1080	1.874		
60	1287	1.803	1246	1.803	1324	1.805	1360	1.832		
80	1760	1.740	1983	1.743	1620	1.737	1827	1.765		
100	2649	1.701	2231	1.699	1939	1.692	2676	1.723		
120	3123	1.669	2827	1.668	2878	1.662	3464	1.689		
140	3057	1.640	2871	1.636	3354	1.634	3886	1.658		
160	3463	1.615	3327	1.610	3184	1.603	4201	1.629		
180	3764	1.592	3958	1.590	3207	1.577				
200	4428	1.573	4767	1.571						

Gasket thickness e_G



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