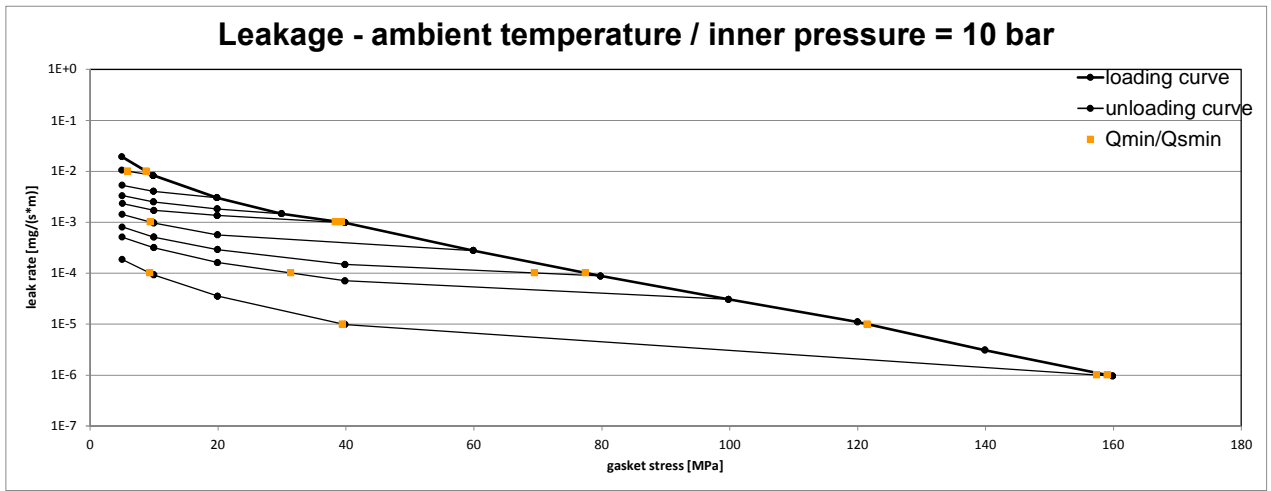
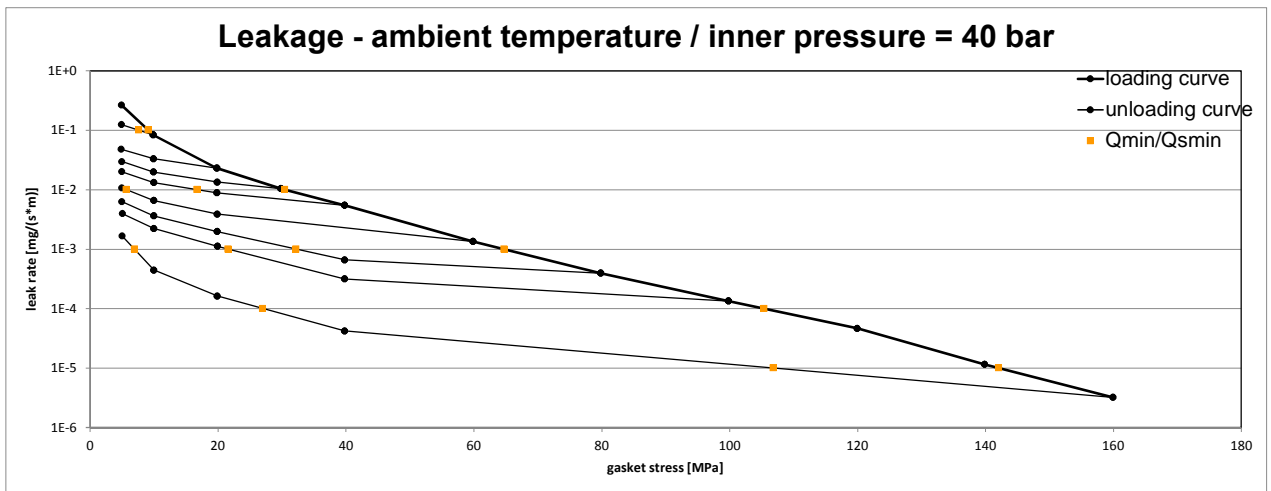


Company Address	SGL Group - The Carbon Company, Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to <b>DIN EN 13555</b> <b>2014-07</b>
Gasket Type	Sigraflex APX2 Hochdruck V15011W3	
Sealing element dimensions [mm]	92 x 49 x 1.5	

L [mg/(s*m)]	Q <sub>min/L</sub> [MPa]	Minimum stress to seal Q <sub>min/L</sub> (at assembly), Q <sub>Smin/L</sub> (after off-loading) for p = 10 bar									
		Q <sub>Smin/L</sub> [MPa]									
		Q <sub>A</sub> = 10 MPa	Q <sub>A</sub> = 20 MPa	Q <sub>A</sub> = 30 MPa	Q <sub>A</sub> = 40 MPa	Q <sub>A</sub> = 60 MPa	Q <sub>A</sub> = 80 MPa	Q <sub>A</sub> = 100 MPa	Q <sub>A</sub> = 120 MPa	Q <sub>A</sub> = 140 MPa	Q <sub>A</sub> = 160 MPa
10 <sup>0</sup>	5	5	5	5	5	5	5	5			5
10 <sup>-1</sup>	5	5	5	5	5	5	5	5			5
10 <sup>-2</sup>	9	6	5	5	5	5	5	5			5
10 <sup>-3</sup>	39				38	9	5	5			5
10 <sup>-4</sup>	77						69	31			9
10 <sup>-5</sup>	121										39
10 <sup>-6</sup>	159										157



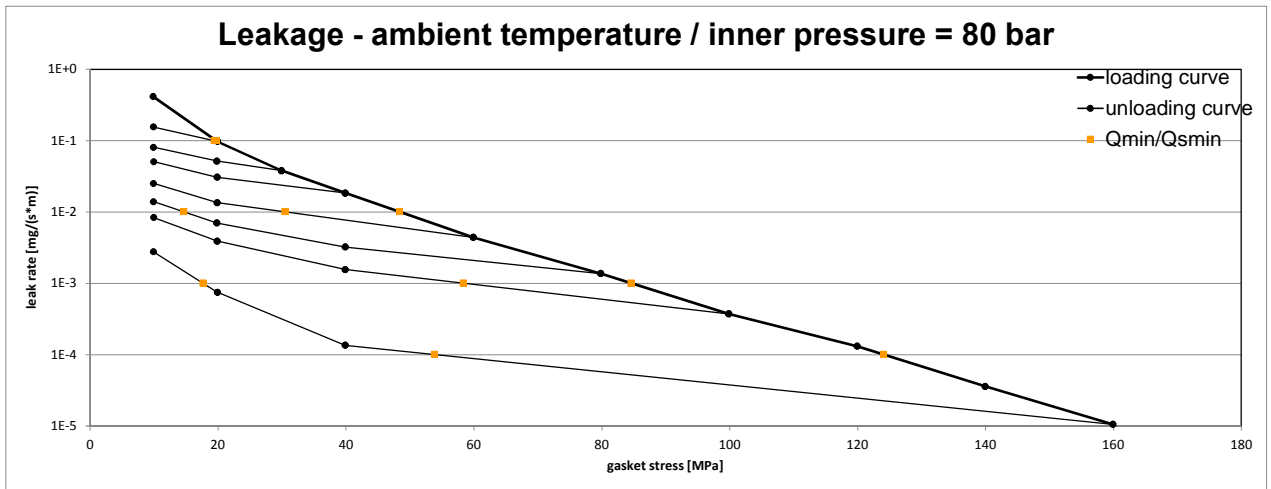
L [mg/(s*m)]	Q <sub>min/L</sub> [MPa]	Minimum stress to seal Q <sub>min/L</sub> (at assembly), Q <sub>Smin/L</sub> (after off-loading) for p = 40 bar									
		Q <sub>Smin/L</sub> [MPa]									
		Q <sub>A</sub> = 10 MPa	Q <sub>A</sub> = 20 MPa	Q <sub>A</sub> = 30 MPa	Q <sub>A</sub> = 40 MPa	Q <sub>A</sub> = 60 MPa	Q <sub>A</sub> = 80 MPa	Q <sub>A</sub> = 100 MPa	Q <sub>A</sub> = 120 MPa	Q <sub>A</sub> = 140 MPa	Q <sub>A</sub> = 160 MPa
10 <sup>0</sup>	5	5	5	5	5	5	5	5			5
10 <sup>-1</sup>	9	8	5	5	5	5	5	5			5
10 <sup>-2</sup>	30				17	6	5	5			5
10 <sup>-3</sup>	65						32	22			7
10 <sup>-4</sup>	105										27
10 <sup>-5</sup>	142										107



Note: the content of darkened cells was not determined respectively is unnecessary      Rev - No: 1      Creation date of this sheet: 2015-11-17

Company Address	SGL Group - The Carbon Company, Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to <b>DIN EN 13555</b> 2014-07
Gasket Type	Sigraflex APX2 Hochdruck V15011W3	
Sealing element dimensions [mm]	92 x 49 x 1.5	

Minimum stress to seal $Q_{min,L}$ (at assembly), $Q_{Smin,L}$ (after off-loading) for p = 80 bar											
L [mg/(s*m)]	$Q_{min,L}$ [MPa]	$Q_{Smin,L}$ [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	
$10^{-1}$	20	19	10	10	10	10	10			10	
$10^{-2}$	48				31	15	10			10	
$10^{-3}$	85						58			18	
$10^{-4}$	124									54	



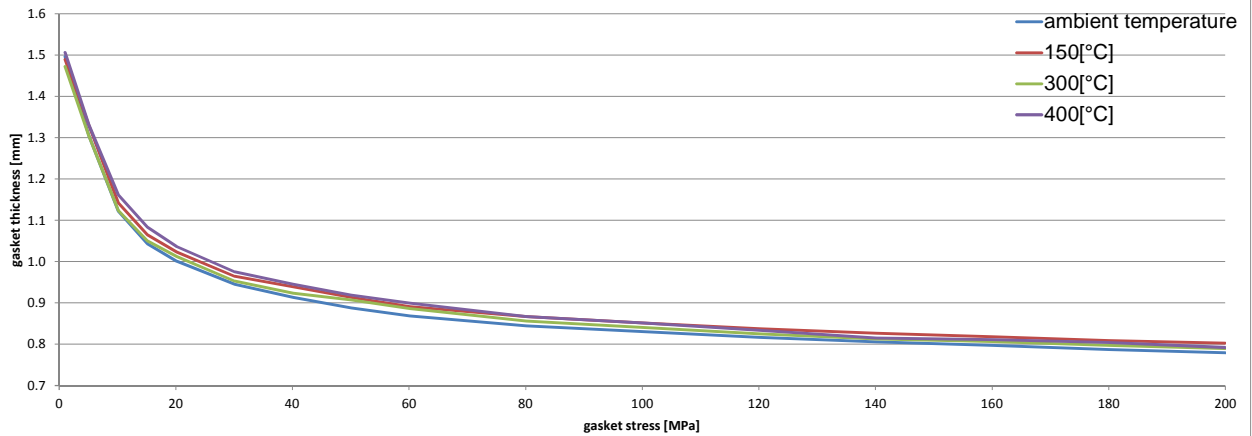
Note: the content of darkened cells was not determined respectively is unnecessary      Rev - No: 1      Creation date of this sheet: 2015-11-17

Company Address	SGL Group - The Carbon Company, Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to <b>DIN EN 13555</b> 2014-07
Gasket Type	Sigralflex APX2 Hochdruck V15011W3	
Sealing element dimensions [mm]	92 x 49 x 1.5	

Relaxation ratio $P_{QR}$ for stiffness $C = 500$ kN/mm								
Gasket stress	ambient temperature		temperature 1 [150 °C]		temperature 2 [300 °C]		temperature 3 [400 °C]	
	$P_{QR}$	$\Delta e_{GC}$ [mm]	$P_{QR}$	$\Delta e_{GC}$ [mm]	$P_{QR}$	$\Delta e_{GC}$ [mm]	$P_{QR}$	$\Delta e_{GC}$ [mm]
Stress level 1 [30 MPa]	0.99	0.003	0.94	0.018	0.92	0.023	0.93	0.020
Stress level 2 [50 MPa]	0.99	0.005	0.97	0.017	0.94	0.029	0.96	0.019
$P_{QR}$ and $\Delta e_{GC}$ at maximal applicable gasket stress $Q_{Smax}$								
$P_{QR}$ at $Q_{Smax}$	1.00	0.000	1.00	0.010	0.99	0.019	0.98	0.038
$Q_{Smax}$	200 MPa		200 MPa		200 MPa		200 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]
0		1.520		1.538		1.512		1.547
1		1.497		1.490		1.473		1.507
5	82	1.306	103	1.330	119	1.305	156	1.332
10	153	1.122	221	1.143	200	1.124	326	1.162
15	293	1.044	321	1.065	347	1.050	376	1.084
20	422	1.001	499	1.023	609	1.013	459	1.037
30	776	0.945	707	0.965	652	0.953	693	0.976
40	1066	0.914	1384	0.939	1210	0.923	1351	0.945
50	1238	0.888	1382	0.913	1953	0.907	1266	0.919
60	1422	0.869	1465	0.891	1607	0.886	1568	0.899
80	2522	0.844	2876	0.867	2390	0.856	2535	0.867
100	4324	0.830	4017	0.851	3756	0.840	4908	0.852
120	5682	0.817	6378	0.838	4279	0.825	3218	0.833
140	5717	0.806	7416	0.827	5711	0.813	3273	0.815
160	7693	0.797	8119	0.818	7175	0.806	17629	0.811
180	7989	0.787	8074	0.808	10451	0.797	34403	0.804
200	9339	0.779	11805	0.802	10041	0.789	12759	0.792

**Gasket thickness  $e_G$**



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