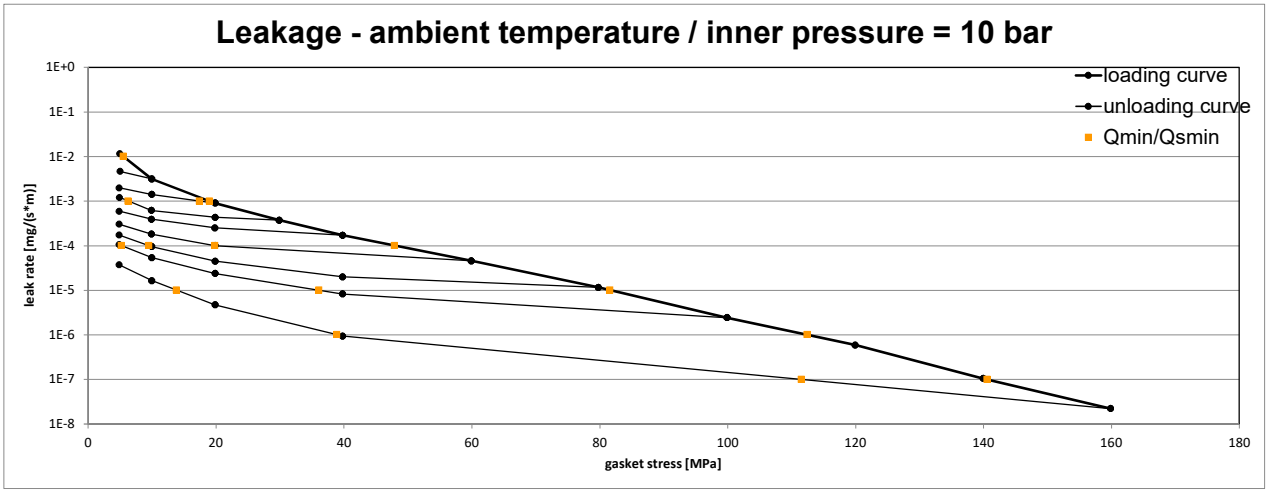
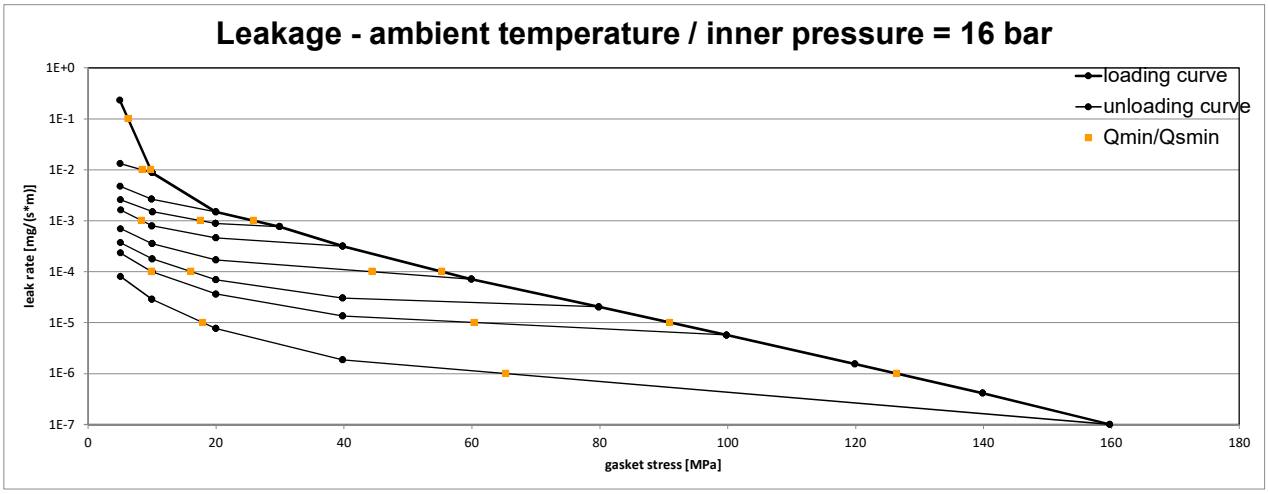
Company Address	SGL Carbon GmbH Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to **DIN EN 13555** **2014-07**
Gasket Type	*Sigraflex Hochdruck Pro V15011Z3I-P*	
Sealing element dimensions [mm]	*92 x 49 x 1.5*	

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}	5	5	5	5	5	5	5	5			5
10^{-3}	19		17	6	5	5	5	5			5
10^{-4}	48					20	10	5			5
10^{-5}	82							36			14
10^{-6}	112										39
10^{-7}	141										112
10^{-8}											



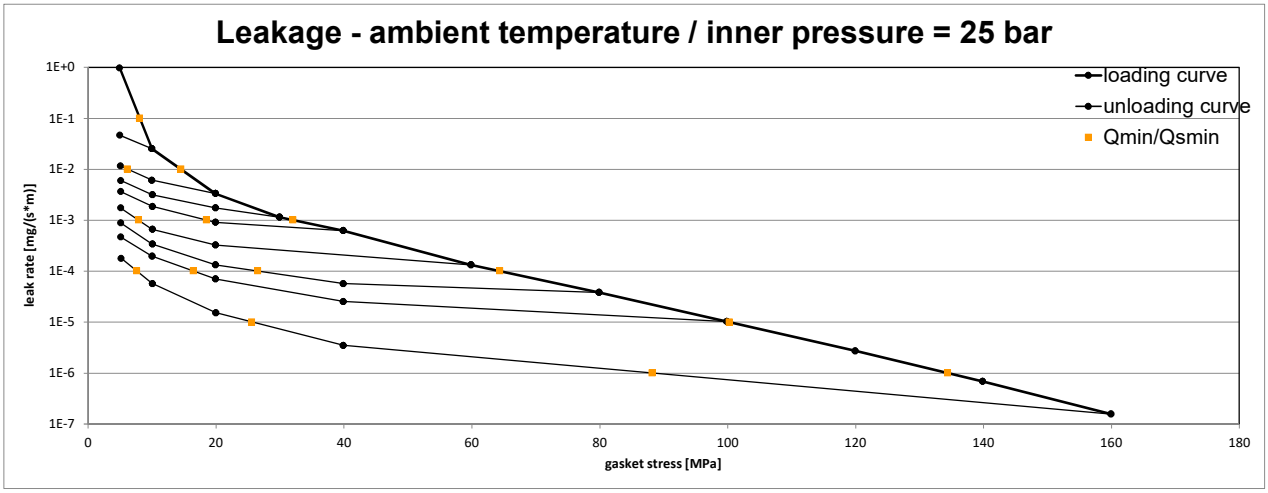
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 16 bar $Q_{Smin/L}$ [MPa]									
		Q_A= 10 MPa	Q_A= 20 MPa	Q_A= 30 MPa	Q_A= 40 MPa	Q_A= 60 MPa	Q_A= 80 MPa	Q_A= 100 MPa	Q_A= 120 MPa	Q_A= 140 MPa	Q_A= 160 MPa
10^{-0}	5	5	5	5	5	5	5	5			5
10^{-1}	6	5	5	5	5	5	5	5			5
10^{-2}	10	8	5	5	5	5	5	5			5
10^{-3}	26			18	8	5	5	5			5
10^{-4}	55					44	16	10			5
10^{-5}	91							60			18
10^{-6}	126										65
10^{-7}											
10^{-8}											



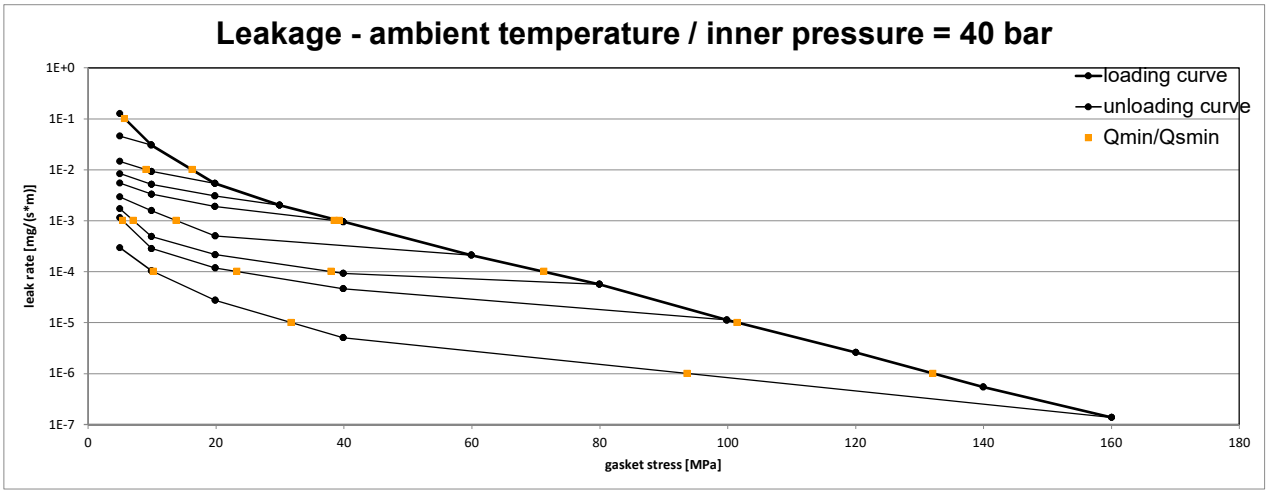
Note: the content of darkened cells was not determined respectively is unnecessary	Rev - No: **2**	Creation date of this sheet:	**2019-04-09**

Company Address	SGL Carbon GmbH Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to **DIN EN 13555** **2014-07**
Gasket Type	*Sigraflex Hochdruck Pro V15011Z3I-P*	
Sealing element dimensions [mm]	*92 x 49 x 1.5*	

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 = 25 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}	15		6	5	5	5	5	5			5
10^{-3}	32				19	8	5	5			5
10^{-4}	64						27	16			8
10^{-5}	100										26
10^{-6}	134										88
10^{-7}											
10^{-8}											



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}	6	5	5	5	5	5	5	5			5
10^{-2}	16		9	5	5	5	5	5			5
10^{-3}	39				38	14	7	5			5
10^{-4}	71						38	23			10
10^{-5}	101										32
10^{-6}	132										94
10^{-7}											
10^{-8}											



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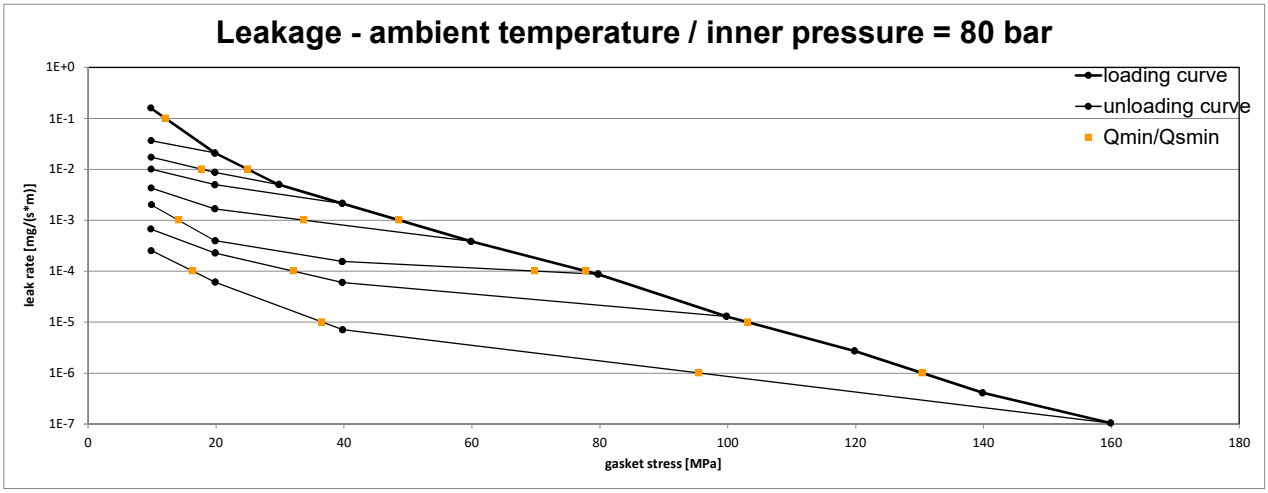
Company Address	*SGL Carbon GmbH* *Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany*	According to **DIN EN 13555** **2014-07**
Gasket Type	*Sigraflex Hochdruck Pro V15011Z3I-P*	
Sealing element dimensions [mm]	*92 x 49 x 1.5*	

L [mg/(s*m)]	$Q_{min/L}$ [MPa]	Minimum stress to seal $\mathbf{Q_{min/L}}$ (at assembly), $\mathbf{Q_{Smin/L}}$ (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}	12	10	10	10	10	10	10			10	
10^{-2}	25		18	10	10	10	10			10	
10^{-3}	49				34	14	10			10	
10^{-4}	78					70	32			16	
10^{-5}	103									37	
10^{-6}	130									96	
10^{-7}											
10^{-8}											



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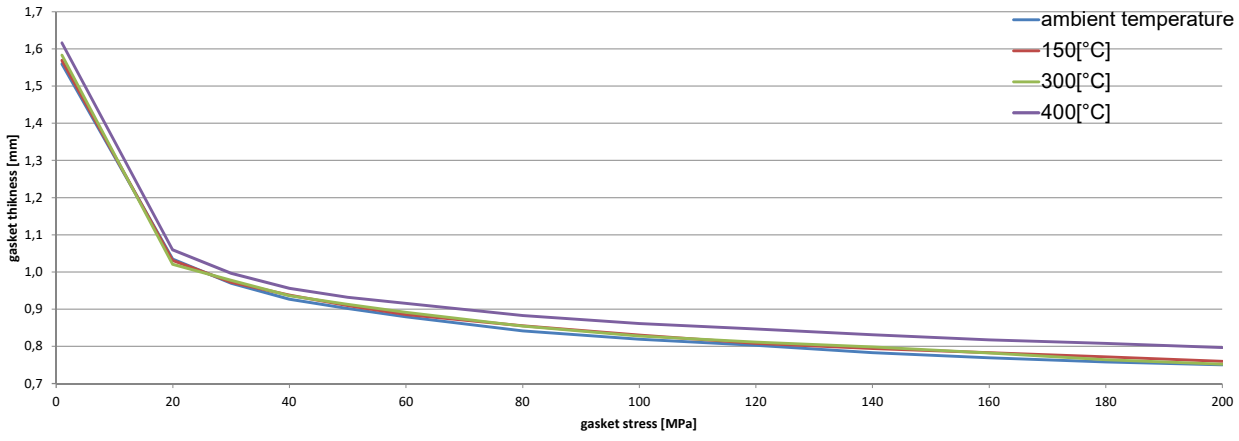
Company Address	SGL Carbon GmbH Werner-von-Siemens-Str. 18, 86405 Meitingen, Germany	According to **DIN EN 13555** **2014-07**
Gasket Type	*Sigraflex Hochdruck Pro V15011Z3I-P*	
Sealing element dimensions [mm]	*92 x 49 x 1.5*	

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}	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]	0.97	0.008	0.93	0.019	0.94	0.015	0.91	0.023		
Stress level 2 [50 MPa]	0.98	0.008	0.96	0.019	0.95	0.023	0.94	0.027		
P_{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{smax}										
P_{QR} at Q_{Smax}	1.00	0.008	0.99	0.017	0.99	0.017	0.98	0.034		
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]	E_G [MPa]	e_G [mm]
0		1.560		1.570		1.584		1.617		
1		1.560		1.570		1.584		1.617		
20	310	1.035	448	1.031	366	1.021	374	1.059		
30	593	0.970	645	0.973	618	0.978	613	0.996		
40	755	0.927	889	0.938	734	0.936	742	0.956		
50	1106	0.902	1015	0.910	1198	0.913	1159	0.932		
60	1349	0.879	1158	0.886	1311	0.892	1821	0.915		
80	1477	0.842	1928	0.856	1398	0.854	1970	0.883		
100	2233	0.819	2000	0.831	1805	0.828	2638	0.862		
120	2913	0.803	1877	0.808	2270	0.811	3739	0.847		
140	2364	0.783	2301	0.794	2853	0.798	4028	0.831		
160	2432	0.770	2737	0.783	2661	0.782	3732	0.817		
180	2786	0.758	3265	0.772	2197	0.764	4497	0.807		
200	3265	0.751	3007	0.760	2201	0.752	6299	0.797		

Gasket thickness e_G



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