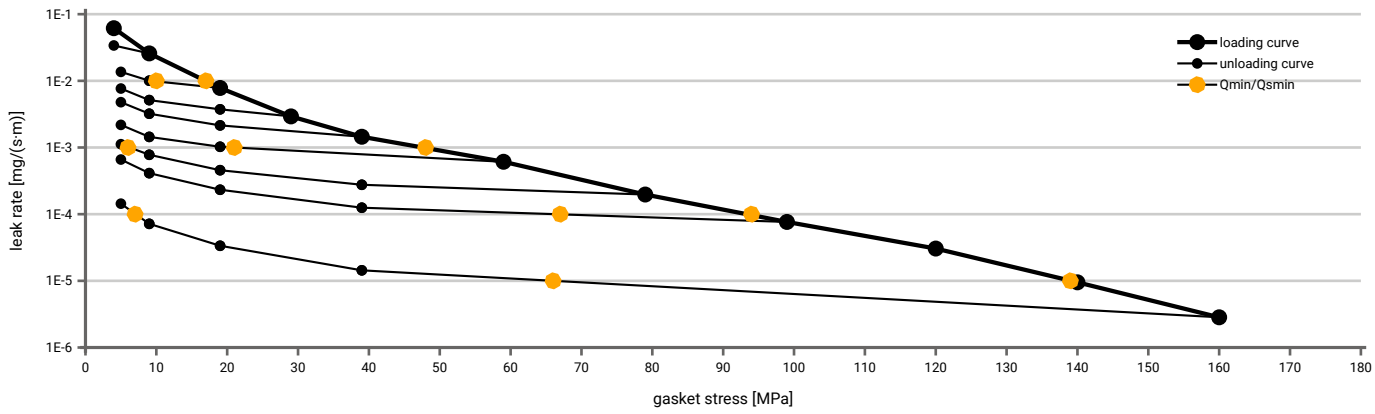
Manufacturer address	SGL Carbon GmbH, Werner-von-Siemens-Straße 16, 86405 Meitingen, DE	According to
Product name	Sigraflex Universal V20010C2I	**DIN EN 13555**
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	**2005-2**

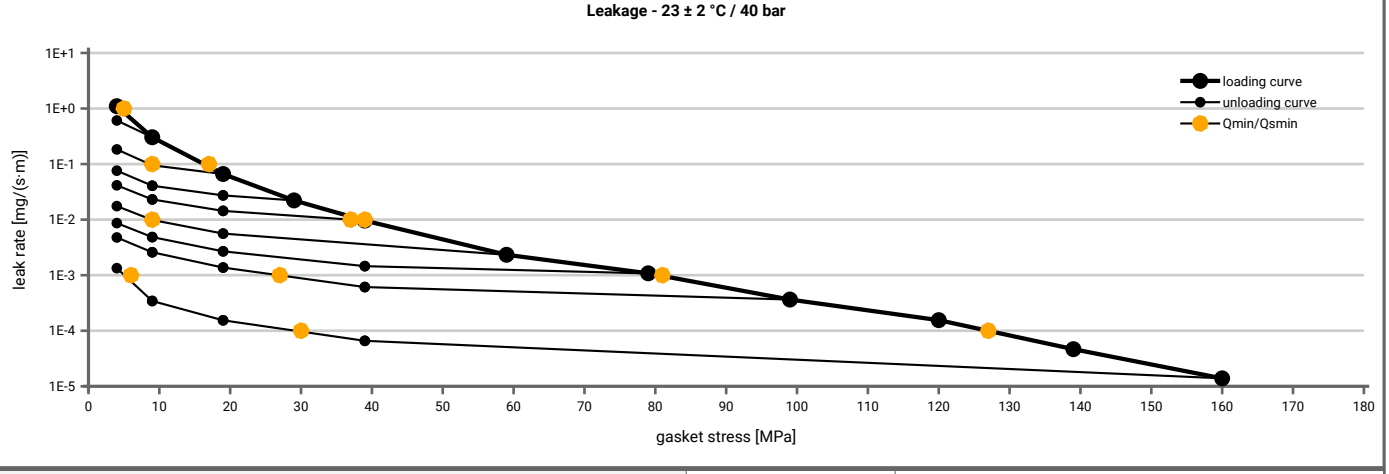
Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 10 bar (T = 23 ± 2 °C)

L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]										
		Q_A = 5 [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]
1E-0	5		5	5	5	5	5	5	5			5
1E-1	5		5	5	5	5	5	5	5			5
1E-2	18			10	5	5	5	5	5			5
1E-3	48						22	7	5			5
1E-4	94								67			8
1E-5	139											67
1E-6												
1E-7												
1E-8												



Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 40 bar (T = 23 ± 2 °C)

L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]										
		Q_A = 5 [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]
1E+1	5		5	5	5	5	5	5	5			5
1E-0	5		5	5	5	5	5	5	5			5
1E-1	17			9	5	5	5	5	5			5
1E-2	39					38	10	5	5			5
1E-3	81								28			6
1E-4	127											30
1E-5												
1E-6												
1E-7												
1E-8												

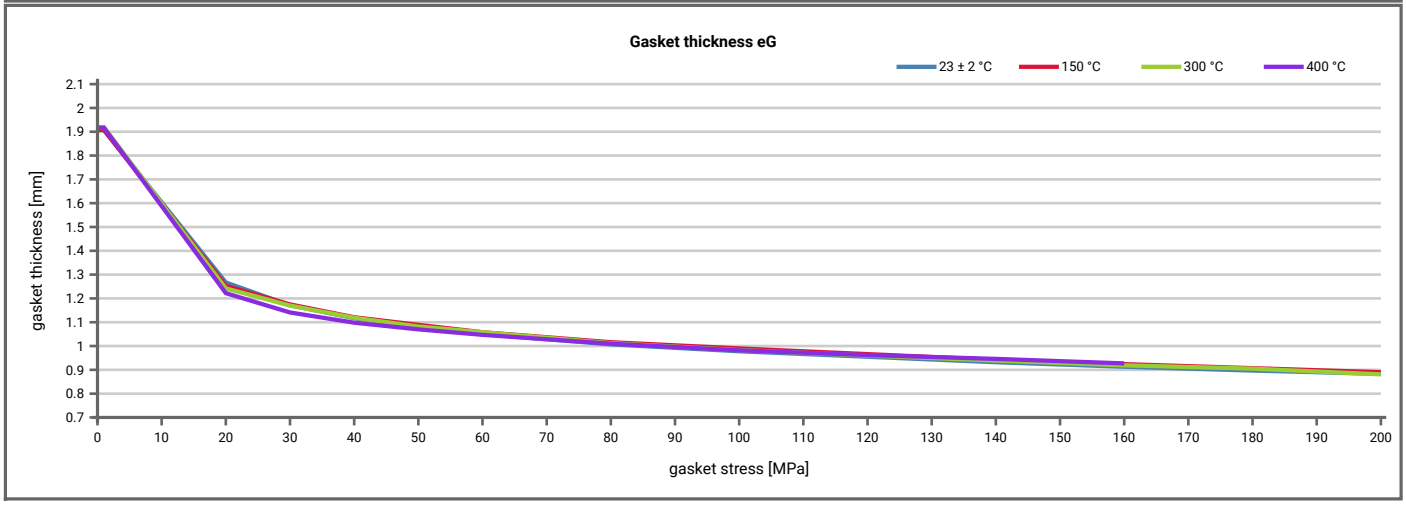


Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **2**	Creation date of this sheet: **2014-02-17**

Manufacturer address	SGL Carbon GmbH, Werner-von-Siemens-Straße 16, 86405 Meitingen, DE	According to **DIN EN 13555 2005-2**
Product name	Sigraflex Universal V20010C2I	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

Relaxation ratio P_{QR} for stiffness C = 500 [kN/mm]										
Gasket stress	**23 ± 2 °C**		**Temperature 1 [150 °C]**		**Temperature 2 [300 °C]**		**Temperature 3 [400 °C]**			
	P_{QR}	**Δe_{Gc} [µm]**	**P_{QR}**	**Δe_{Gc} [µm]**	**P_{QR}**	**Δe_{Gc} [µm]**	**P_{QR}**	**Δe_{Gc} [µm]**	**P_{QR}**	**Δe_{Gc} [µm]**
Stress level 1 [30 MPa]	0.98	6	0.92	20	0.91	24	0.89	28		
Stress level 2 [50 MPa]	0.98	8	0.96	19	0.94	27	0.93	31		
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	1.00	8	0.99	17	0.99	17	0.98	27		
Q_{smax}	200 MPa		200 MPa		200 MPa		160 MPa			

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	**23 ± 2 °C**		**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	0	1.907	0	1.908	0	1.919	0	1.917		
1	0	1.907	0	1.908	0	1.919	0	1.917		
20	405	1.267	491	1.253	524	1.242	501	1.222		
30	627	1.171	756	1.175	750	1.170	763	1.141		
40	798	1.117	778	1.121	860	1.119	1197	1.098		
50	1035	1.079	1225	1.089	1097	1.082	1605	1.070		
60	1196	1.050	1181	1.058	1511	1.058	1950	1.047		
80	1797	1.007	1747	1.016	1597	1.012	2492	1.010		
100	2186	0.978	2268	0.990	1922	0.983	2925	0.982		
120	2393	0.955	2647	0.966	2440	0.960	3519	0.962		
140	2449	0.932	2364	0.942	2742	0.939	5731	0.946		
160	2517	0.913	2498	0.924	2693	0.919	5029	0.927		
180	2836	0.897	2743	0.907	3120	0.905				
200	3141	0.883	2664	0.890	2665	0.881				



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