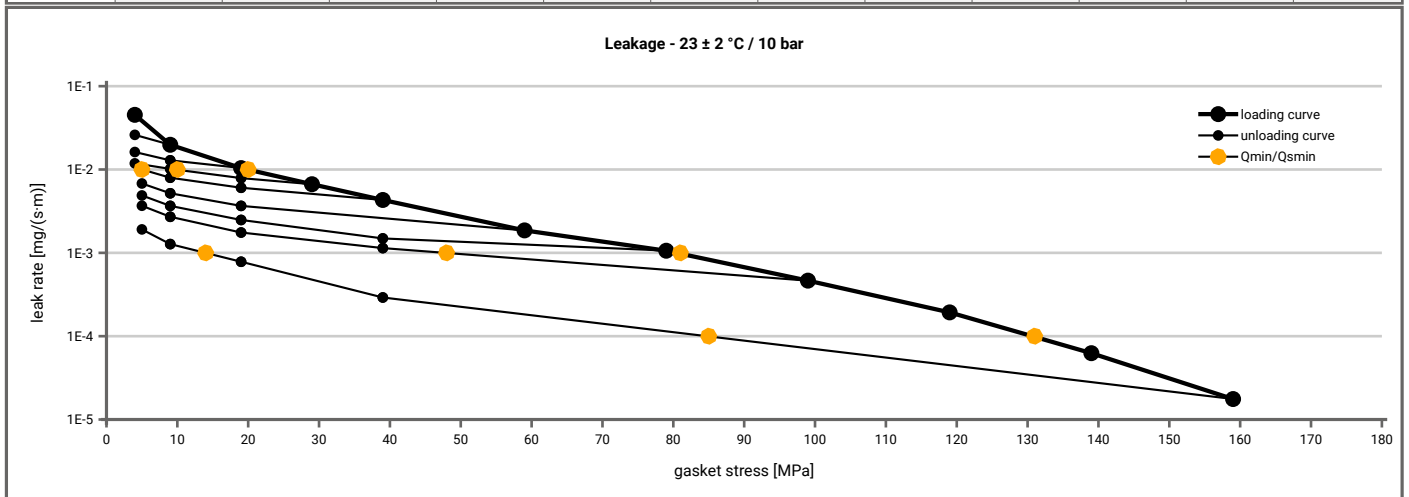
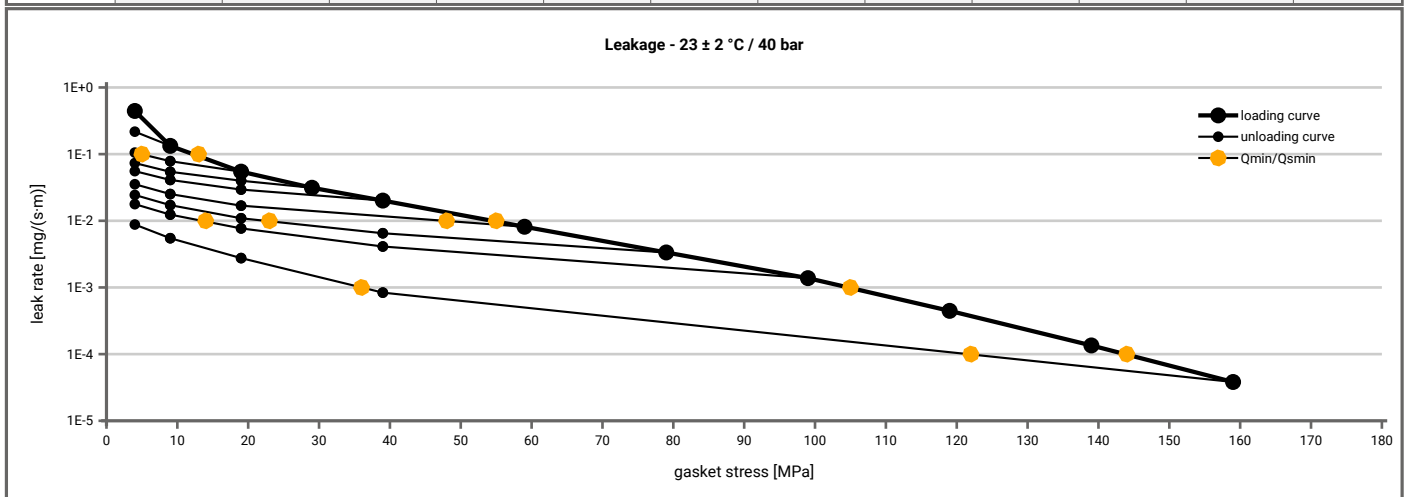


Manufacturer address	SGL Carbon GmbH, Werner-von-Siemens-Straße 16, 86405 Meitingen, DE	According to DIN EN 13555 2014-7
Product name	Sigraflex Economy V20010C4	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for $p = 10$ bar ($T = 23 \pm 2$ °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	21				11	5	5	5	5			5
1E-3	81								49			15
1E-4	132											85
1E-5												
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 ($T = 23 \pm 2$ °C)												
L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]										
		$Q_A = 4.8$ [MPa]	$Q_A = 9.7$ [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	13			6	5	5	5	5	5			5
1E-2	55						48	23	14			5
1E-3	106											37
1E-4	145											122
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: 2017-02-06

Manufacturer address	SGL Carbon GmbH, Werner-von-Siemens-Straße 16, 86405 Meitingen, DE	According to DIN EN 13555 2014-7
Product name	Sigraflex Economy V20010C4	
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]	0.97	8	0.95	13	0.95	13	0.88	30		
Stress level 2 [50 MPa]	0.98	8	0.97	15	0.97	15	0.94	27		
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	1.00	0	0.98	17	0.98	17	0.97	35		
Q_{smax}	200 MPa		100 MPa		100 MPa		120 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	2.099	0	2.111	0	2.104	0	2.075		
1	0	2.099	0	2.111	0	2.104	0	2.075		
20	324	1.289	416	1.287	552	1.283	441	1.238		
30	517	1.208	655	1.216	669	1.213	829	1.169		
40	711	1.160	776	1.167	769	1.163	926	1.123		
50	937	1.125	1017	1.131	1113	1.127	1625	1.096		
60	1129	1.096	1289	1.105	1223	1.097	1517	1.069		
80	1680	1.055	1667	1.063	1678	1.054	3324	1.040		
100	1793	1.020	1704	1.019	1691	1.008	3721	1.015		
120	2072	0.994					2830	0.989		
140	2496	0.972								
160	2822	0.950								
180	2694	0.928								
200	3190	0.909								

