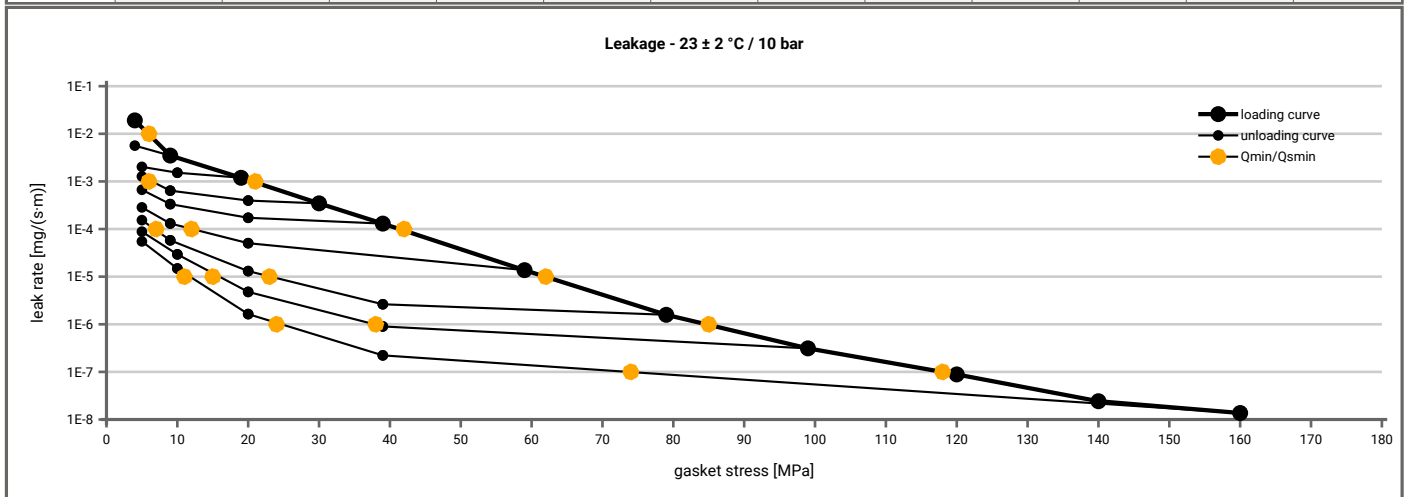
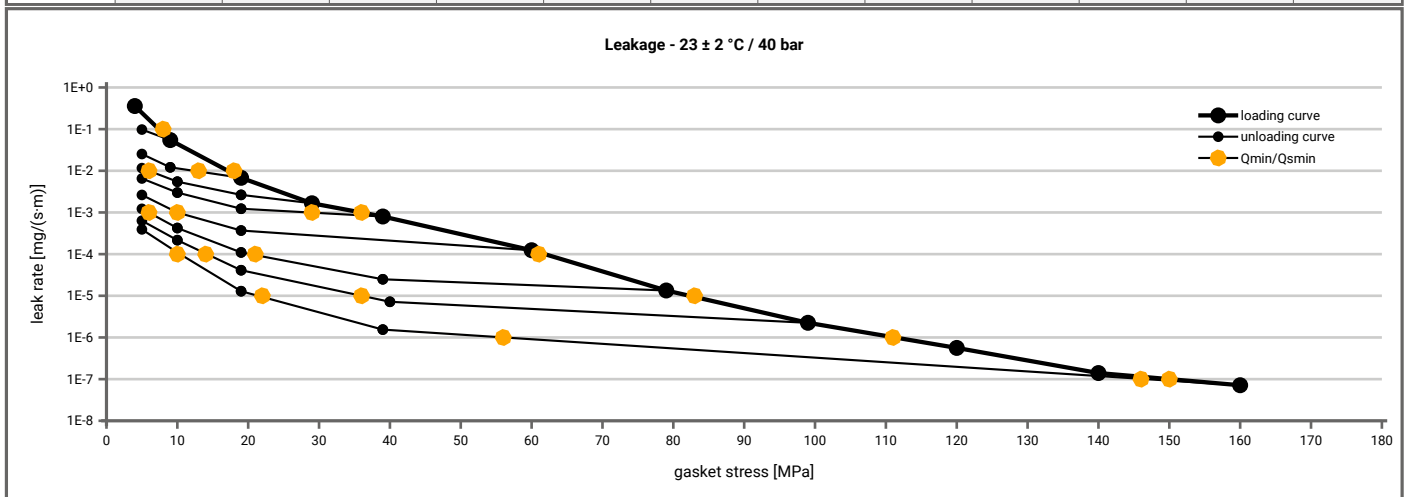


Manufacturer address	SGL Carbon GmbH, Werner-von-Siemens-Straße 16, 86405 Meitingen, DE	According to DIN EN 13555 2005-2
Product name	Sigraflex Universal Pro V30010C2I-P	
Product dimensions	92 x 49 x 3 mm (DIN EN 1514-1 1997-8)	

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		5
1E-1	5		5	5	5	5	5	5	5	5		5
1E-2	7		5	5	5	5	5	5	5	5		5
1E-3	21				7	5	5	5	5	5		5
1E-4	42						13	7	5			5
1E-5	63							23	16			12
1E-6	86								39			25
1E-7	118											74
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]										
		$Q_A = 5$ [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		5
1E-1	8		5	5	5	5	5	5	5	5		5
1E-2	18			13	6	5	5	5	5	5		5
1E-3	37					29	10	6	5			5
1E-4	62							21	15			10
1E-5	83								36			22
1E-6	112											57
1E-7	150											147
1E-8												



Note: the content of darkened cells was not determined respectively is unnecessary Rev.-No.: 1 Creation date of this sheet: 2012-03-01

Manufacturer address	SGL Carbon GmbH, Werner-von-Siemens-Straße 16, 86405 Meitingen, DE	According to DIN EN 13555 2005-2
Product name	Sigraflex Universal Pro V30010C2I-P	
Product dimensions	92 x 49 x 3 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]		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	0.92	20	0.90	25				
Stress level 2 [50 MPa]	0.98	8	0.96	17	0.95	23				
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	1.00	0	0.99	13	0.99	18				
Q_{smax}	180 MPa		160 MPa		140 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]		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	2.984	0	2.968	0	2.918				
1	0	2.984	0	2.968	0	2.918				
20	358	1.897	447	1.859	414	1.854				
30	629	1.764	649	1.743	586	1.765				
40	789	1.684	941	1.675	811	1.684				
50	1265	1.638	1136	1.623	1300	1.640				
60	1326	1.595	1314	1.581	1191	1.593				
80	1786	1.535	1836	1.524	1747	1.530				
100	2328	1.494	2255	1.484	1949	1.486				
120	2679	1.462	2674	1.454	2893	1.458				
140	3182	1.437	3149	1.426	2981	1.429				
160	3293	1.409	3675	1.405						
180	4090	1.392								

