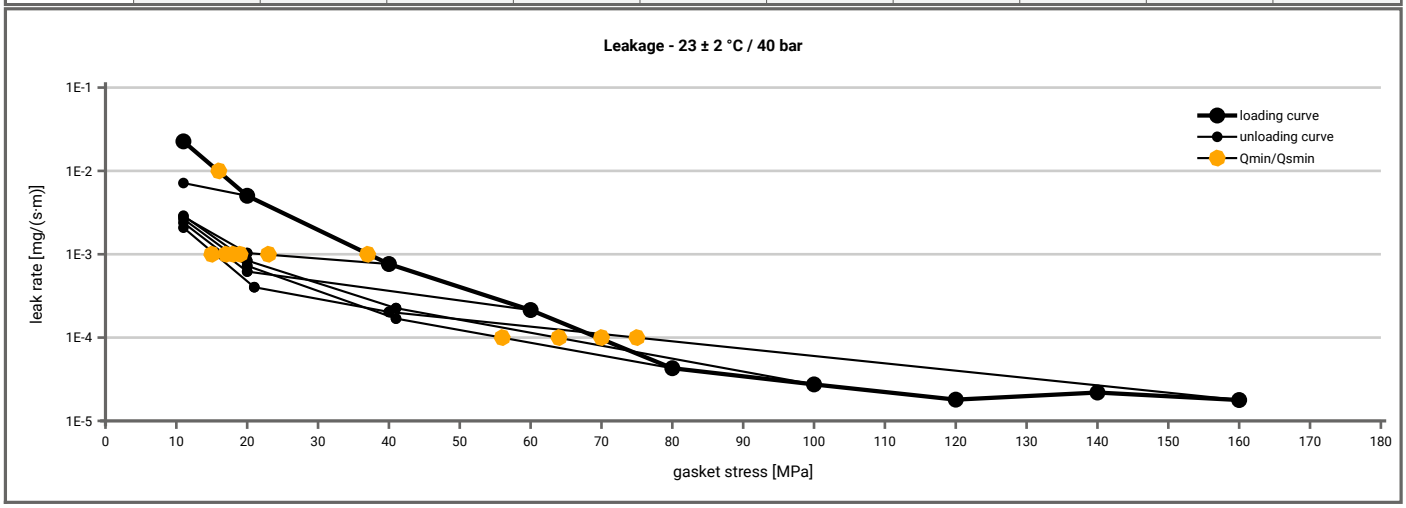
Manufacturer address	Kempchen Dichtungstechnik GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to **DIN EN 13555 2014-7**
Product name	Spiral wound gasket SpV2I - Graphite (1.4541 / 0,5 mm; D = 1,0g/ccm)	
Product dimensions	68 x 56 x 4.85 mm (DIN EN 1514-2 2014-8)	

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 = 11 [MPa]	Q_A = 21 [MPa]	Q_A = 41 [MPa]	Q_A = 61 [MPa]	Q_A = 81 [MPa]	Q_A = 101 [MPa]	Q_A = 121 [MPa]	Q_A = 141 [MPa]	Q_A = 160 [MPa]
1E-0	11		11	11	11	11	11			11
1E-1	11		11	11	11	11	11			11
1E-2	16		11	11	11	11	11			11
1E-3	38			23	17	18	19			16
1E-4	70					56	64			76
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: **2017-11-29**

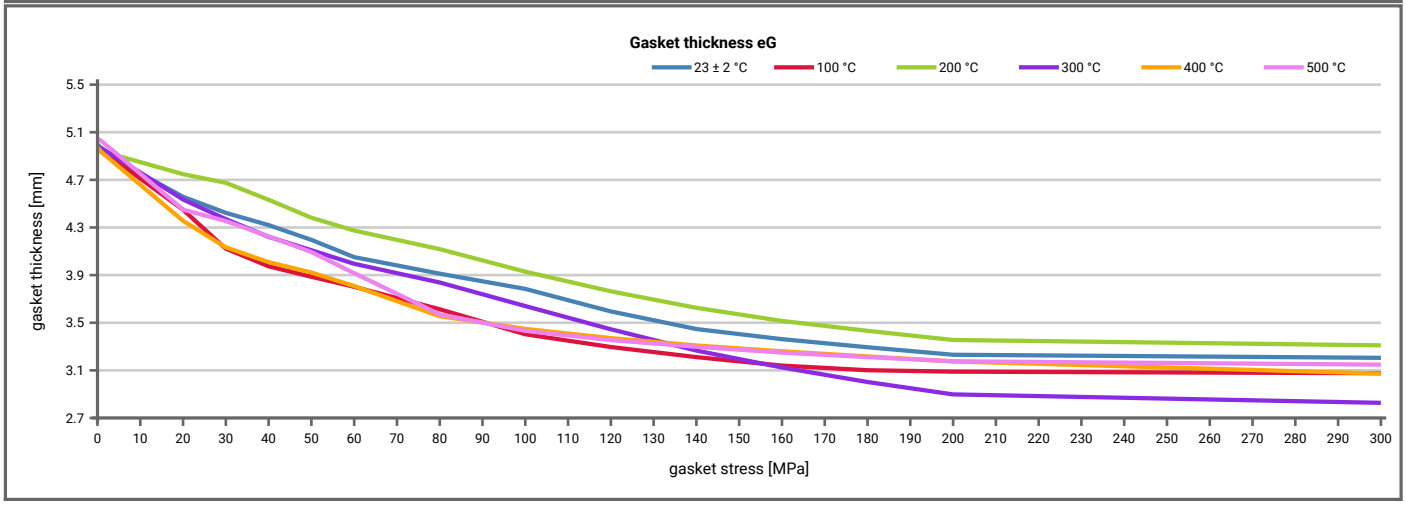
Manufacturer address	Kempchen Dichtungstechnik GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to **DIN EN 13555 2014-7**
Product name	Spiral wound gasket SpV2I - Graphite (1.4541 / 0,5 mm; D = 1,0g/ccm)	
Product dimensions	68 x 56 x 4.85 mm (DIN EN 1514-2 2014-8)	

Relaxation ratio P_{QR} for stiffness C = 500 [kN/mm]

Gasket stress	23 ± 2 °C		Temperature 1 [100 °C]		Temperature 2 [200 °C]		Temperature 3 [300 °C]		Temperature 4 [400 °C]		Temperature 5 [500 °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]	P_{QR}	Δe_{Gc} [µm]
Stress level 1 [90 MPa]	0.97	7	0.91	20	0.89	23	0.85	33	0.91	19	0.65	75
Stress level 2 [150 MPa]	0.99	4	0.97	12	0.92	30	0.91	32	0.92	28	0.83	61
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}												
P_{QR} at Q_{smax}	1.00	0	0.99	11	0.98	14	0.98	18	0.95	35	0.99	11
Q_{smax}	300 MPa		300 MPa		300 MPa		300 MPa		300 MPa		300 MPa	

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]

Gasket stress [MPa]	23 ± 2 °C		Temperature 1 [100 °C]		Temperature 2 [200 °C]		Temperature 3 [300 °C]		Temperature 4 [400 °C]		Temperature 5 [500 °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]	E_G [MPa]	e_G [mm]
0	0	4.985	0	4.995	0	5.000	0	4.990	0	4.975	0	5.045
1	0	4.930	0	4.947	0	4.940	0	4.965	0	4.931	0	5.024
20	1148	4.558	1496	4.449	1206	4.748	1336	4.535	1485	4.356	1553	4.450
30	1679	4.423	1777	4.122	1835	4.675	2068	4.370	1950	4.133	2454	4.354
40	2327	4.320	2185	3.974	2265	4.533	2511	4.222	2649	4.009	3628	4.226
50	2683	4.196	2897	3.886	3337	4.382	2990	4.109	3278	3.922	4654	4.094
60	2995	4.051	3725	3.802	3297	4.274	3478	3.995	3319	3.808	4340	3.916
80	3267	3.912	3462	3.613	4390	4.118	4281	3.838	4281	3.555	5245	3.570
100	4223	3.784	4575	3.403	4600	3.929	4350	3.640	6018	3.448	6569	3.432
120	4851	3.595	5142	3.296	5952	3.764	5745	3.445	6945	3.371	8074	3.354
140	4413	3.447	6140	3.211	5421	3.625	5954	3.266	8912	3.309	9706	3.298
160	5053	3.362	6433	3.140	6000	3.515	6674	3.124	10207	3.260	9549	3.249
180	5805	3.294	9877	3.101	6719	3.432	6896	3.002	10990	3.217	10802	3.211
200	6096	3.231	12913	3.089	6882	3.355	9523	2.898	10581	3.175	11341	3.176
300	9223	3.205	52451	3.076	10586	3.310	10514	2.827	25384	3.073	16447	3.148



Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **2**	Creation date of this sheet: **2017-11-29**