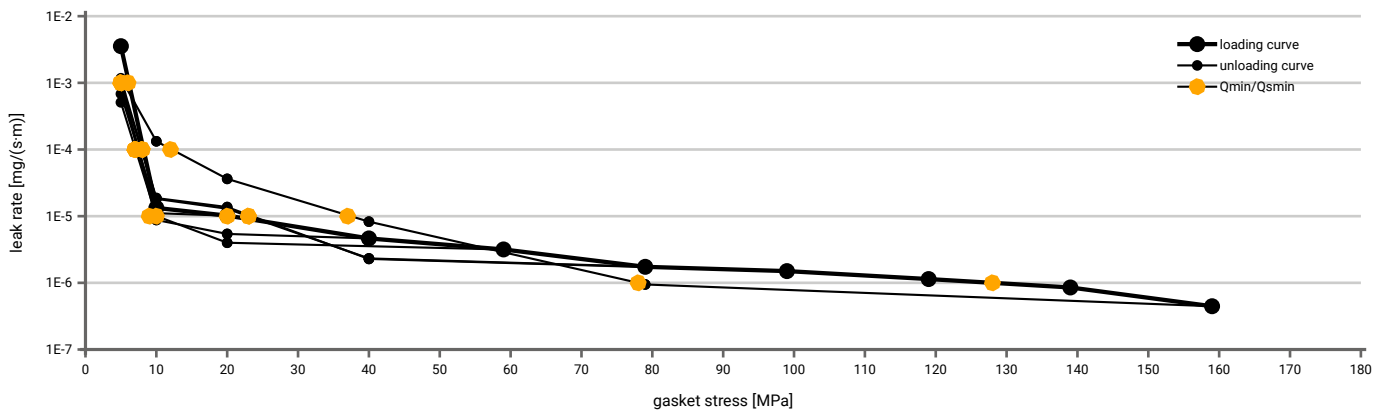
Manufacturer address	KLINGER A.W. Schultze GmbH, Mercatorstr. 10, 21502 Geesthacht, DE	According to
Product name	Egraflex Steelflon Waveline WLP	DIN EN 13555
Product dimensions	92 x 49 x 2.3 mm (DIN EN 1514-1 1997-8)	2014-7

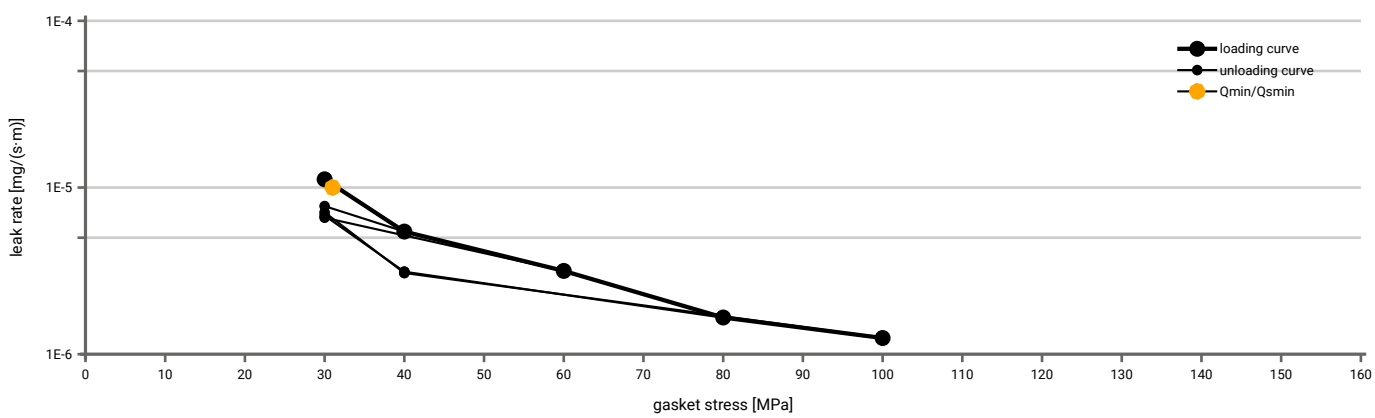
Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 40 bar (T = 23 ± 2 °C)

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 = 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
1E-1	5		5	5	5	5	5	5			5
1E-2	5		5	5	5	5	5	5			5
1E-3	6		5	5	5	5	5	5			5
1E-4	8		7	8	7	7	8	8			12
1E-5	20				10	10	23	24			37
1E-6	129										79
1E-7											
1E-8											



Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 160 bar (T = 23 ± 2 °C)

L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]				
		Q_A = 30 [MPa]	Q_A = 40 [MPa]	Q_A = 60 [MPa]	Q_A = 80 [MPa]	Q_A = 100 [MPa]
1E-0	30		30	30	30	30
1E-1	30		30	30	30	30
1E-2	30		30	30	30	30
1E-3	30		30	30	30	30
1E-4	30		30	30	30	30
1E-5	32		30	30	30	30
1E-6						
1E-7						
1E-8						

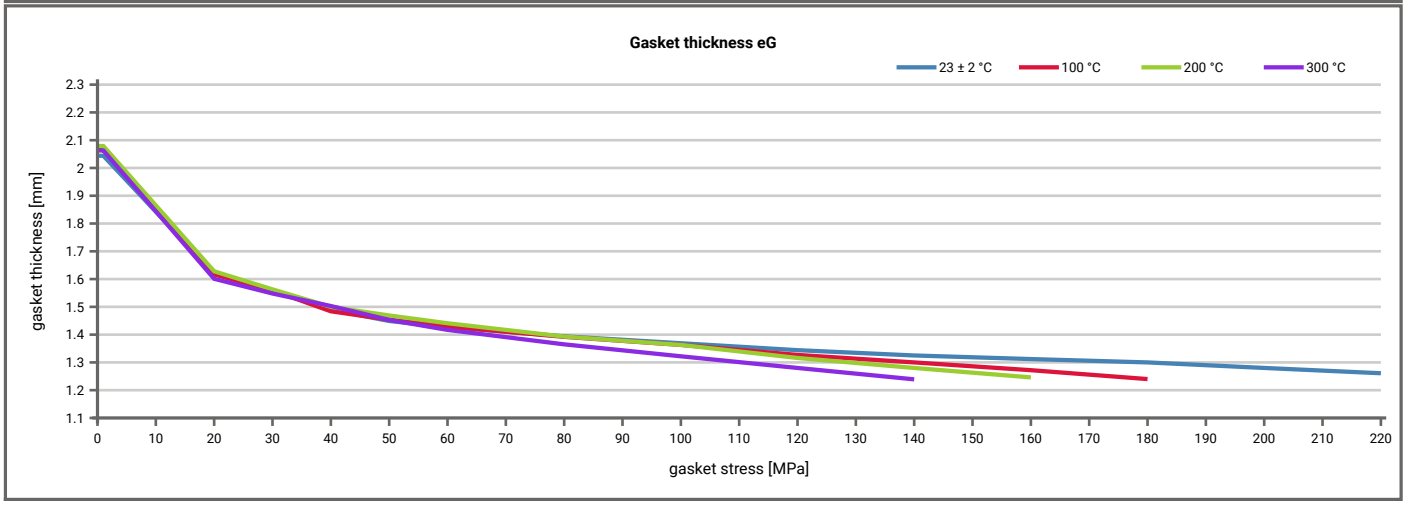


Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **2**	Creation date of this sheet: **2020-02-03**

Manufacturer address	KLINGER A.W. Schultze GmbH, Mercatorstr. 10, 21502 Geesthacht, DE	According to
Product name	Egraflex Steelflon Waveline WLP	**DIN EN 13555**
Product dimensions	92 x 49 x 2.3 mm (DIN EN 1514-1 1997-8)	**2014-7**

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]**			
	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]	0.99	3	0.92	20	0.88	30	0.94	16		
Stress level 2 [50 MPa]	1.00	2	0.99	4	0.97	15	0.96	19		
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	0.99	18	0.98	30	0.95	74	0.91	106		
Q_{smax}	220 MPa		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 [100 °C]**		**Temperature 2 [200 °C]**		**Temperature 3 [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	2.044	0	2.072	0	2.079	0	2.063		
1	0	2.044	0	2.072	0	2.079	0	2.063		
20	559	1.619	596	1.617	646	1.628	540	1.601		
30	853	1.558	895	1.559	841	1.563	821	1.548		
40	1251	1.490	1276	1.484	1324	1.500	1176	1.503		
50	1446	1.449	1609	1.454	1805	1.469	1545	1.453		
60	1939	1.427	1886	1.429	1781	1.441	1633	1.417		
80	2920	1.394	2660	1.392	2387	1.393	2839	1.365		
100	3549	1.369	4016	1.363	4361	1.363	2930	1.322		
120	3908	1.344	3184	1.327	3058	1.316	3844	1.280		
140	4283	1.325	4809	1.300	5765	1.280	4379	1.239		
160	6168	1.312	5719	1.272	6665	1.246				
180	7443	1.300	6504	1.240						
200	5772	1.280								
220	5971	1.261								



Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **2**	Creation date of this sheet: **2020-02-03**