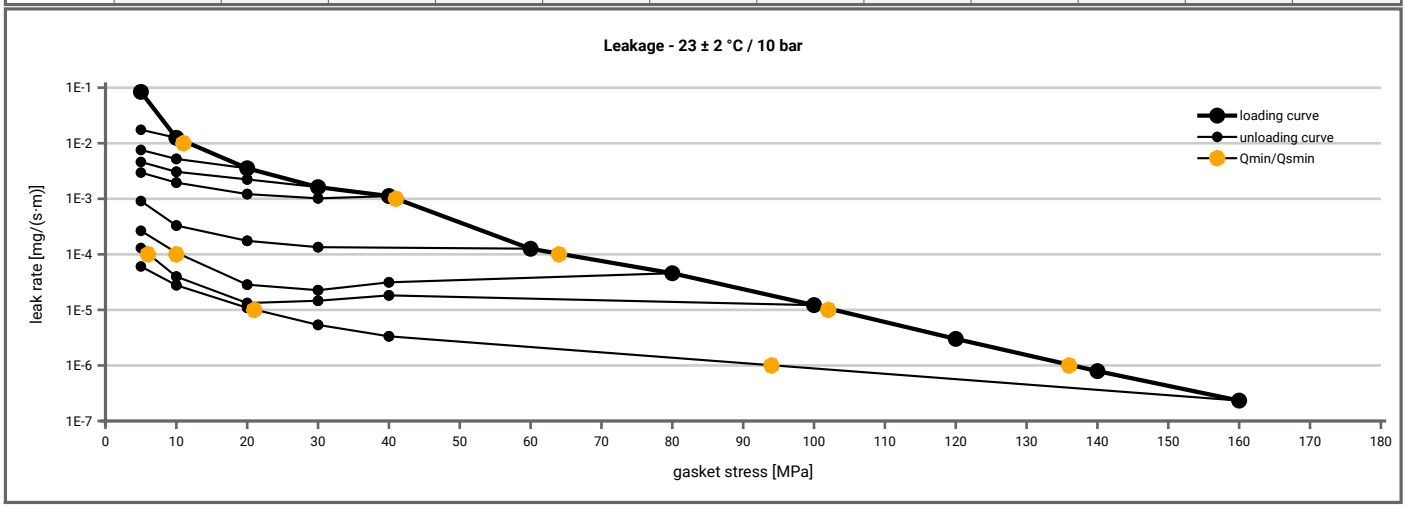
Manufacturer address	KLINGER Kempchen GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to
Product name	Rivatherm Hochdruck F1 RHD2S3075-I mit Innenbördel	**DIN EN 13555**
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	**2014-7**

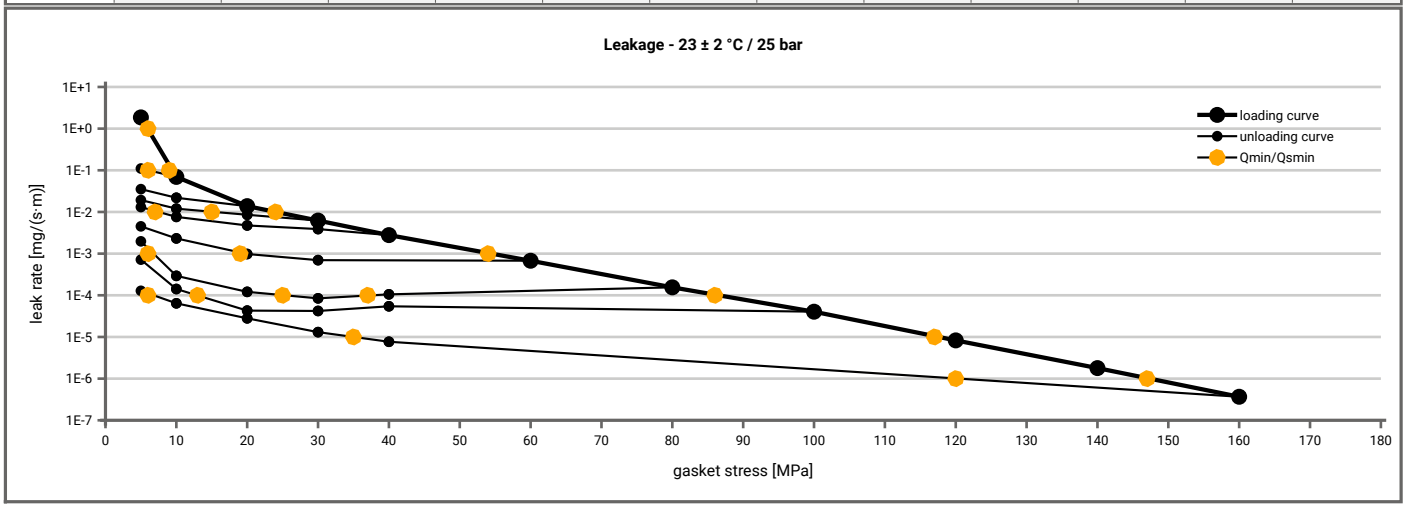
Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 10 bar (T = 23 ± 2 °C)

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	12			5	5	5	5	5	5			5
1E-3	41						5	5	5			5
1E-4	65							11	6			5
1E-5	103											21
1E-6	136											94
1E-7												



Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 25 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	6		5	5	5	5	5	5	5			5
1E-1	9		6	5	5	5	5	5	5			5
1E-2	24				15	8	5	5	5			5
1E-3	55						20	7	5			5
1E-4	87							38	13			7
1E-5	118											35
1E-6	148											121
1E-7												

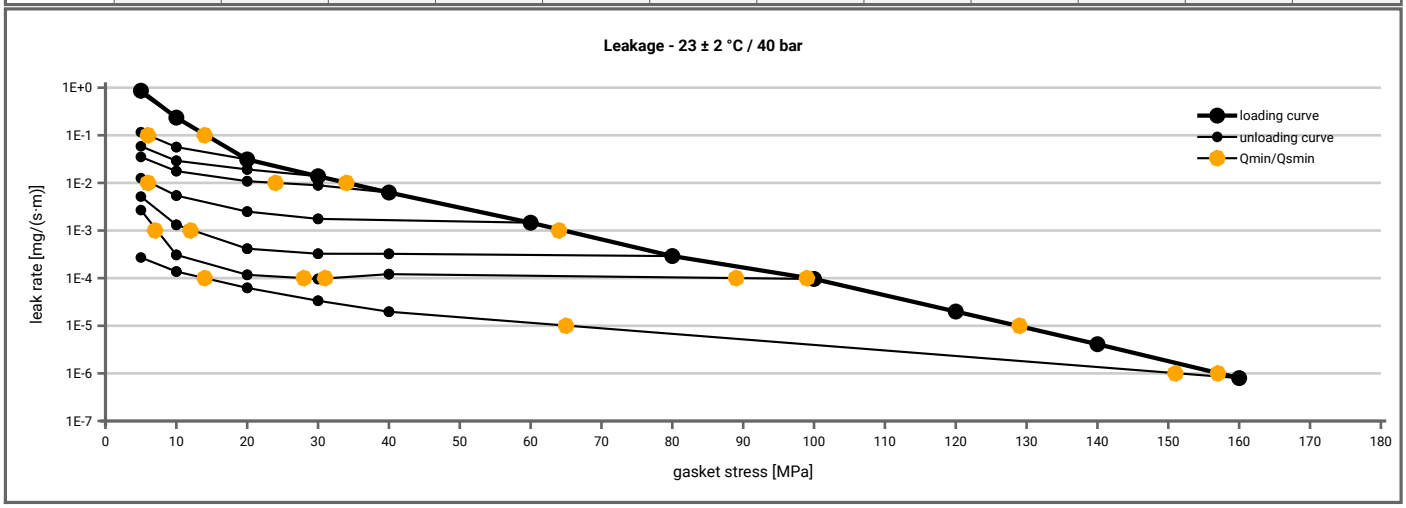


Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **5**	Creation date of this sheet: **2025-06-13**

Manufacturer address	KLINGER Kempchen GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to **DIN EN 13555 2014-7**
Product name	Rivatherm Hochdruck F1 RHD2S3075-I mit Innenbördel	
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 = 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-0	5		5	5	5	5	5	5	5			5
1E-1	14			6	5	5	5	5	5			5
1E-2	34					24	6	5	5			5
1E-3	65							12	7			5
1E-4	99								90			14
1E-5	129											66
1E-6	158											152
1E-7												



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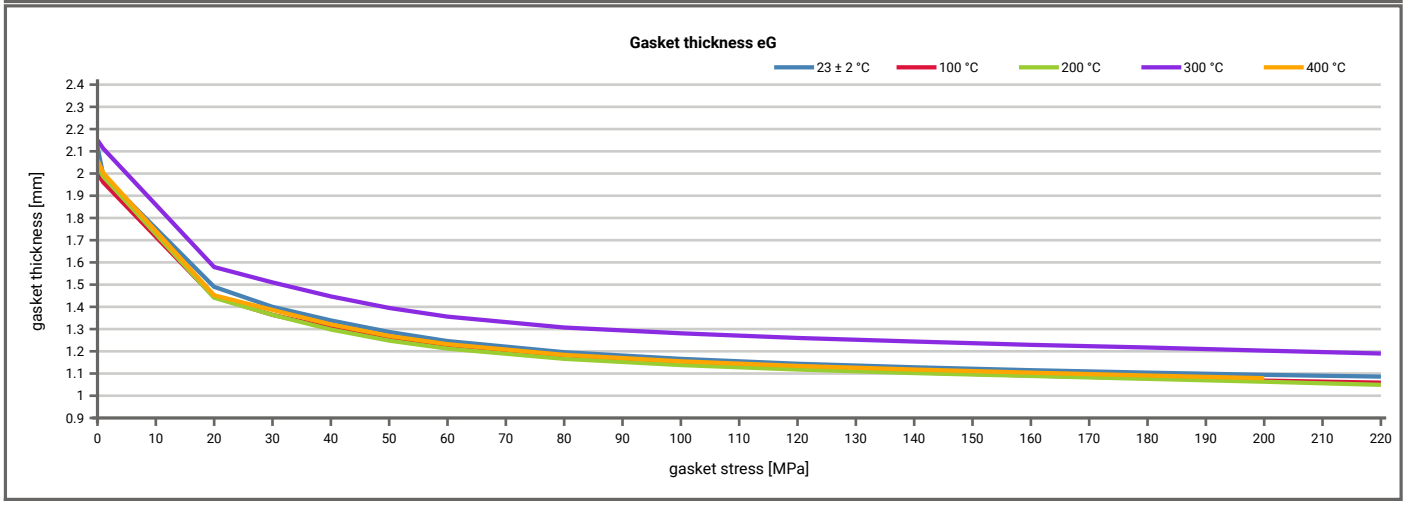
Manufacturer address	KLINGER Kempchen GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to **DIN EN 13555 2014-7**
Product name	Rivatherm Hochdruck F1 RHD2S3075-I mit Innenbördel	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

Relaxation ratio P_{QR} for stiffness C = 500 [kN/mm]										
Gasket stress	**23 ± 2 °C**		**Temperature 1 [100 °C]**		**Temperature 2 [200 °C]**		**Temperature 3 [300 °C]**		**Temperature 4 [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 [50 MPa]	0.99	5	0.96	18	0.95	20	0.93	36	0.94	27
Stress level 2 [120 MPa]	1.00	3	0.98	18	0.99	12	0.97	30	1.00	4
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied (Q_{smax})										
P_{QR} at Q_{smax}	1.00	3	0.99	11	1.00	6	1.00	5	0.99	17
Q_{smax}	220 MPa		220 MPa		220 MPa		220 MPa		200 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]**	
	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	2.120	0	2.000	0	2.030	0	2.150	0	2.060
1	0	1.990	0	1.960	0	1.986	0	2.112	0	2.002
20	556	1.490	476	1.444	654	1.441	1183	1.579	751	1.452
30	915	1.400	732	1.364	1004	1.364	1385	1.510	1069	1.386
40	1230	1.339	1017	1.306	1325	1.298	1681	1.447	1394	1.321
50	1525	1.287	1318	1.261	1641	1.248	2098	1.395	1748	1.269
60	1864	1.246	1593	1.225	1982	1.212	2628	1.356	2131	1.232
80	2447	1.196	2154	1.176	2595	1.166	4042	1.307	2690	1.184
100	2967	1.166	2732	1.145	3150	1.138	6070	1.281	3152	1.155
120	3501	1.144	3325	1.122	3628	1.118	7511	1.260	3544	1.134
140	4113	1.128	3951	1.105	4198	1.102	7859	1.244	4012	1.118
160	4639	1.115	4383	1.091	4648	1.089	8838	1.229	4361	1.104
180	5123	1.104	4980	1.079	5072	1.076	10449	1.217	4660	1.091
200	5751	1.094	5422	1.068	5670	1.063	10770	1.203	5106	1.079
220	6300	1.086	5941	1.059	6401	1.049	10180	1.190		



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