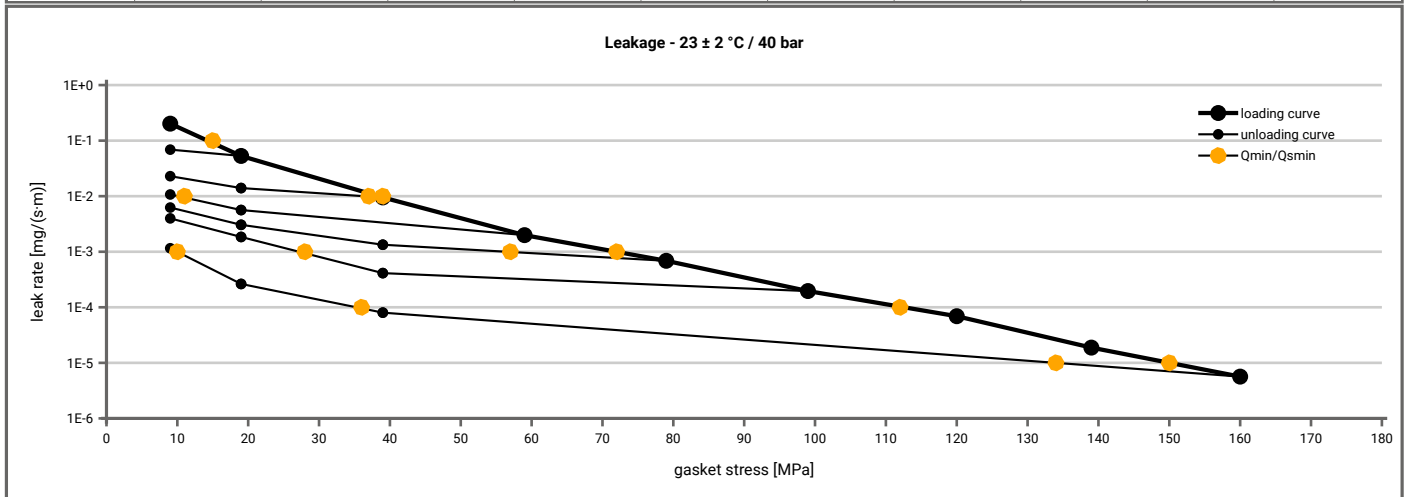


Manufacturer address	KLINGER Kempchen GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to DIN EN 13555 2005-2
Product name	RivaTherm-Super F1 RS2K110	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for $p = 40 \text{ bar}$ ($T = 23 \pm 2 \text{ }^\circ\text{C}$)										
L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [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	10		10	10	10	10	10			10
1E-1	15		10	10	10	10	10			10
1E-2	39			37	11	10	10			10
1E-3	73					57	28			11
1E-4	113									36
1E-5	150									134
1E-6										
1E-7										



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Relaxation ratio P_{QR} for stiffness $C = 500$ [kN/mm]										
Gasket stress	23 ± 2 °C		Temperature 1 [200 °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 [50 MPa]	0.99	4	0.96	19	0.97	15				
Stress level 2 [120 MPa]	1.00	5	0.98	20	0.98	20				
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied (Q_{smax})										
P_{QR} at Q_{smax}	1.00	0	0.99	18	1.00	9				
Q_{smax}	210 MPa		210 MPa		210 MPa					

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	23 ± 2 °C		Temperature 1 [200 °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	2.018	0	1.991	0	2.032				
1	0	2.018	0	1.991	0	2.032				
20	449	1.371	493	1.355	581	1.333				
30	749	1.281	727	1.278	647	1.259				
40	1029	1.210	1116	1.198	1051	1.179				
50	1103	1.159	1141	1.156	1264	1.140				
60	1485	1.128	1417	1.127	1390	1.112				
80	2122	1.090	2094	1.087	1749	1.069				
100	3479	1.067	2811	1.062	2237	1.038				
120	2985	1.043	2721	1.036	3346	1.022				
140	2728	1.019	2898	1.017	3433	1.003				
160	3109	1.003	3224	1.002	2967	0.986				
180	3846	0.992	3591	0.988	3133	0.970				
200	4285	0.979	3642	0.974	3191	0.956				
210	4586	0.970	3512	0.964	3359	0.940				

