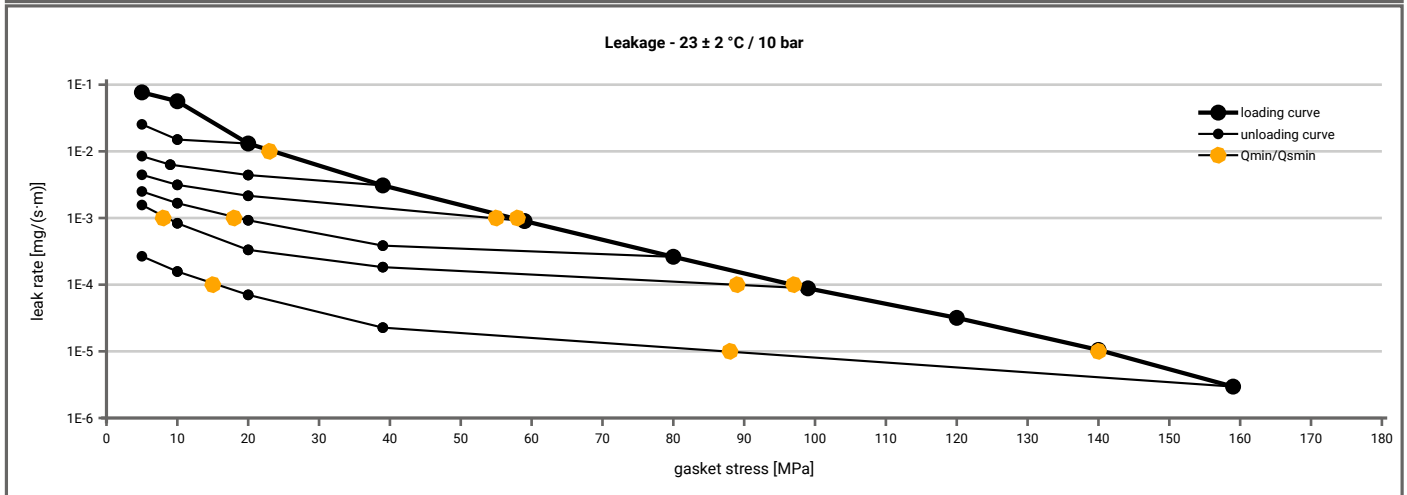
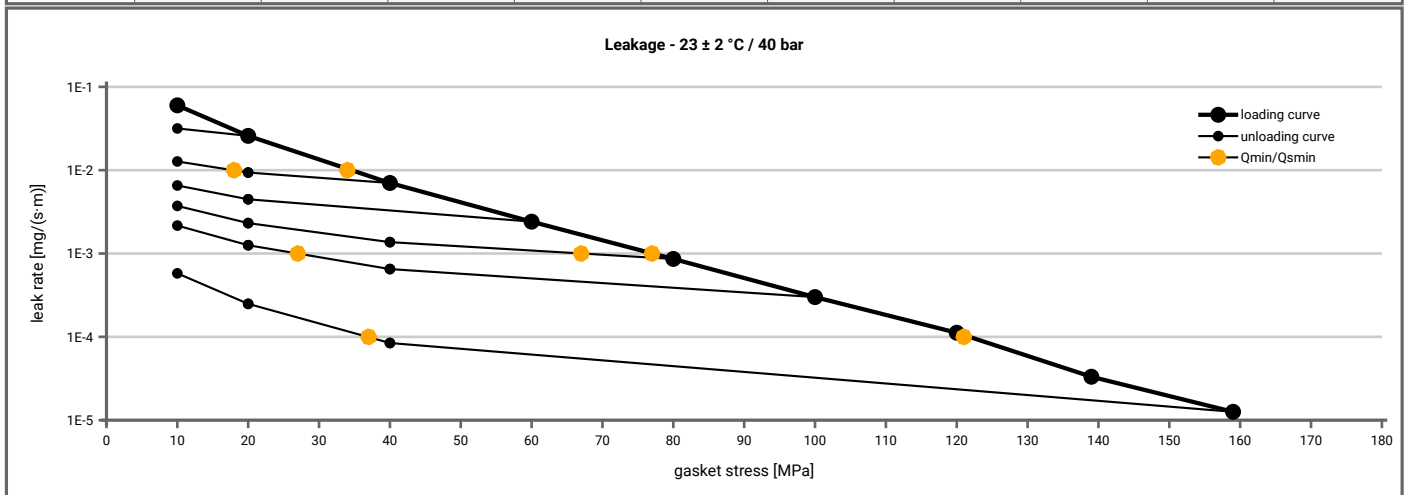


Manufacturer address	KLINGER Kempchen GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to DIN EN 13555 2005-2
Product name	RivaTherm-Super Plus A1 RSP2S205-I (316L / Graphit 99%)	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for $p = 10$ 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]	$Q_A = 40$ [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
1E-1	5			5	5	5	5	5			5
1E-2	24				5	5	5	5			5
1E-3	58					55	19	9			5
1E-4	98							90			16
1E-5	141										88
1E-6											
1E-7											

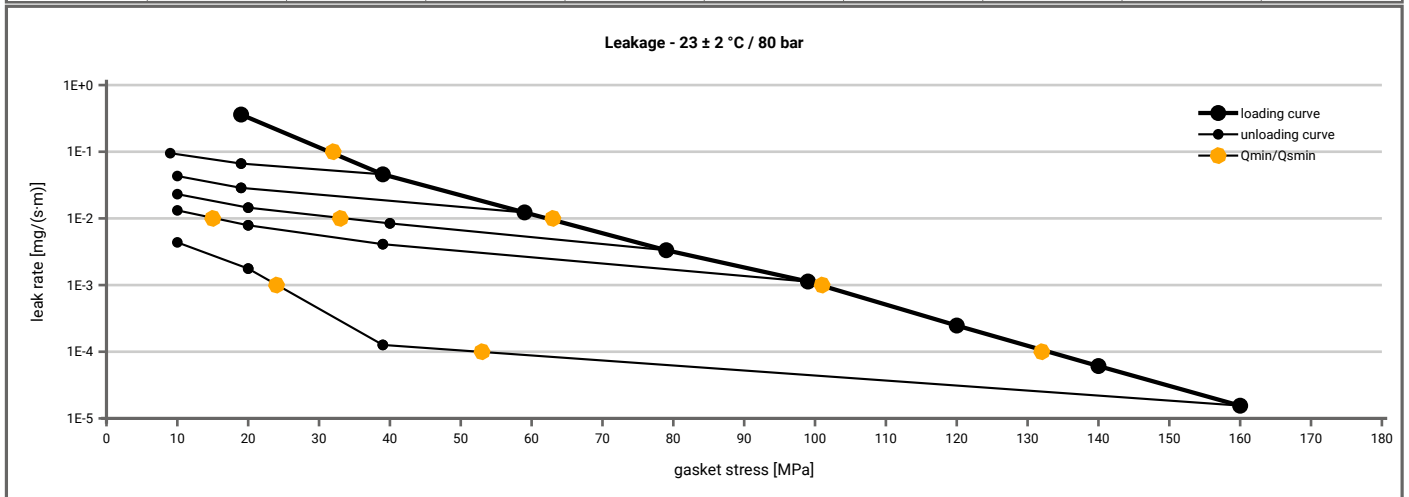


Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for $p = 40$ bar ($T = 23 \pm 2$ °C)											
L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]									
		$Q_A = 10$ [MPa]	$Q_A = 20$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [MPa]	$Q_A = 100$ [MPa]	$Q_A = 120$ [MPa]	$Q_A = 140$ [MPa]	$Q_A = 160$ [MPa]	
1E-0	10		10	10	10	10	10	10			10
1E-1	10		10	10	10	10	10	10			10
1E-2	35			18	10	10	10	10			10
1E-3	77					67	27				10
1E-4	122										37
1E-5											
1E-6											
1E-7											



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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 $p = 80$ bar ($T = 23 \pm 2$ °C)									
L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [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	20		10	10	10	10			10
1E-1	32		10	10	10	10			10
1E-2	63				34	15			10
1E-3	101								24
1E-4	133								53
1E-5									
1E-6									
1E-7									



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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 [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 [30 MPa]	0.96	10	0.89	29	0.85	39				
Stress level 2 [50 MPa]	0.99	6	0.90	42	0.89	48				
Stress level 3 [90 MPa]	0.99	8	0.97	23	0.90	76				
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied (Q_{smax})										
P_{QR} at Q_{smax}	0.99	18	0.94	76	0.93	82				
Q_{smax}	220 MPa		140 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 [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	2.045	0	2.063	0	2.054				
1	0	2.045	0	2.063	0	2.054				
20	366	1.328	385	1.299	466	1.280				
30	589	1.246	724	1.248	756	1.231				
40	955	1.199	930	1.203	887	1.183				
50	1016	1.161	1289	1.172	1280	1.151				
60	1523	1.135	1259	1.140	1363	1.123				
80	2086	1.095	2137	1.103	1886	1.081				
100	2619	1.066	2408	1.071	2406	1.050				
120	3094	1.044	2961	1.050	3167	1.031				
140	3607	1.025	2823	1.031	2996	1.012				
160	3261	1.007								
180	3858	0.995								
200	4232	0.984								
220	4607	0.978								

