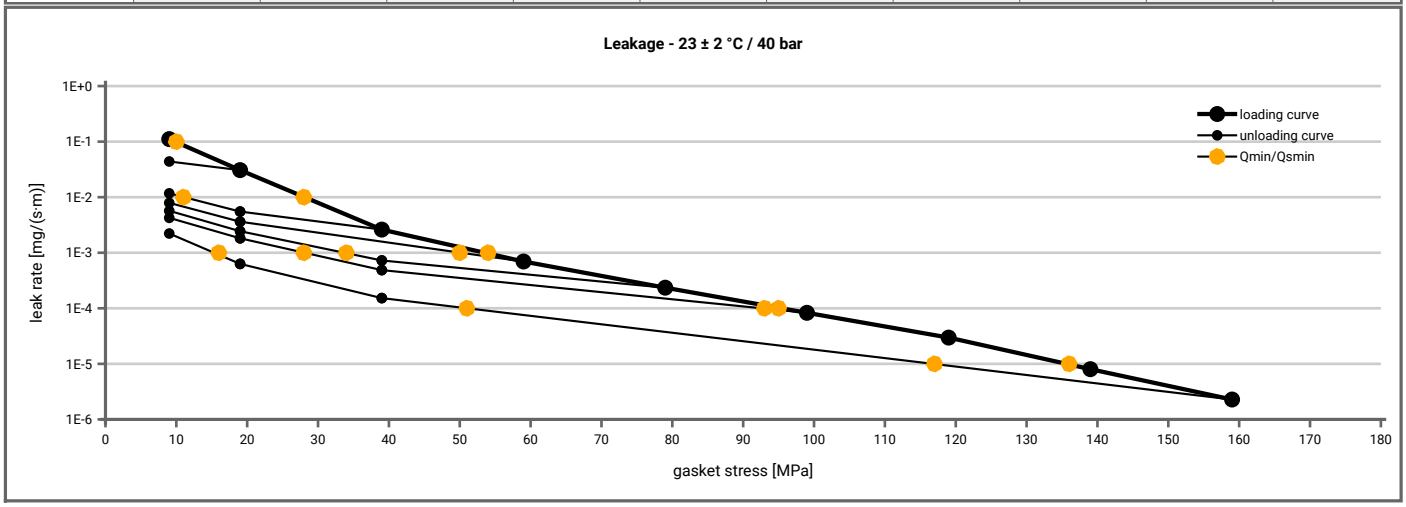
Manufacturer address	KLINGER Kempchen GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to **DIN EN 13555 2005-2**
Product name	Grooved gasket B7A / B9A / B15 Graphite (1.4571 / 0,5 mm; 1,0 g/ccm)	
Product dimensions	73 x 53 x 4.8 mm (Nonstandard)	

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 = 9.7 [MPa]	Q_A = 20 [MPa]	Q_A = 39 [MPa]	Q_A = 60 [MPa]	Q_A = 80 [MPa]	Q_A = 100 [MPa]	Q_A = 119 [MPa]	Q_A = 140 [MPa]	Q_A = 160 [MPa]
1E-0	10		10	10	10	10	10			10
1E-1	11		10	10	10	10	10			10
1E-2	29			12	10	10	10			10
1E-3	54				51	34	29			16
1E-4	96						93			52
1E-5	136									117
1E-6										
1E-7										



Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **2**	Creation date of this sheet: **2025-06-16**

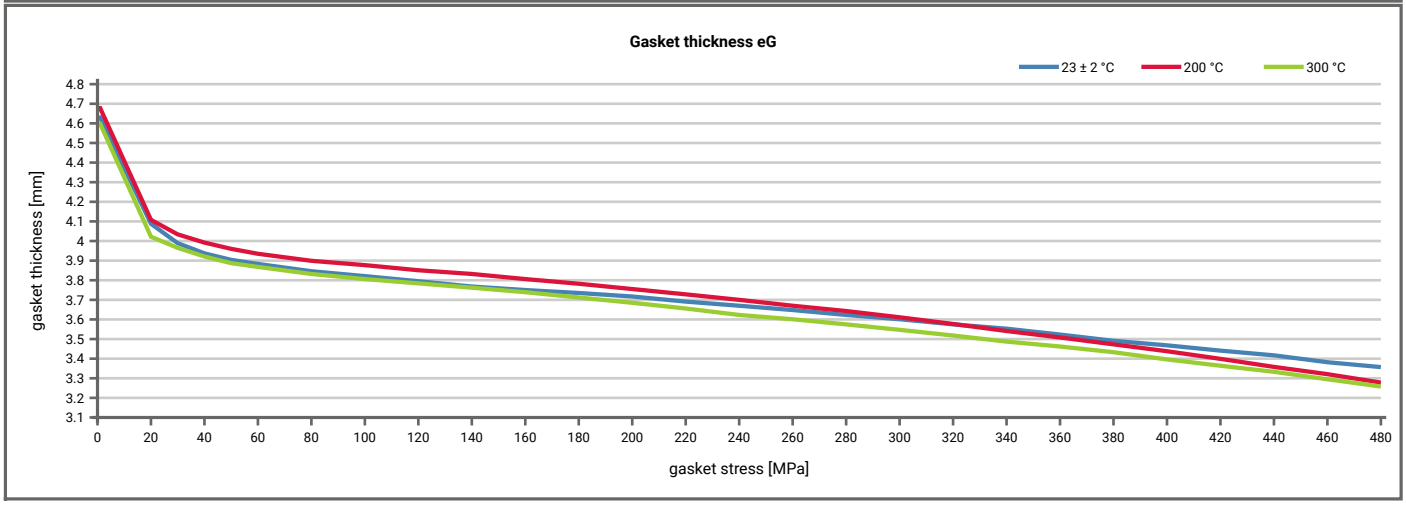
Manufacturer address	KLINGER Kempchen GmbH, Im Waldteich 21, 46147 Oberhausen, DE	According to **DIN EN 13555 2005-2**
Product name	Grooved gasket B7A / B9A / B15 Graphite (1.4571 / 0,5 mm; 1,0 g/ccm)	
Product dimensions	73 x 53 x 4.8 mm (Nonstandard)	

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 [15 MPa]	0.98	1	0.83	10	0.75	15				
Stress level 2 [90 MPa]	0.99	4	0.95	20	0.98	7				
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied (Q_{smax})										
P_{QR} at Q_{smax}	0.99	19	0.98	38	0.99	19				
Q_{smax}	480 MPa		480 MPa		480 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	4.630	0	4.678	0	4.598				
1	0	4.630	0	4.678	0	4.598				
20	1312	4.088	1624	4.108	1452	4.022				
30	2385	3.989	2909	4.034	2972	3.965				
40	3083	3.937	4334	3.992	3953	3.921				
50	3926	3.904	4167	3.960	4880	3.887				
60	4605	3.883	4149	3.935	5925	3.868				
80	5218	3.846	5533	3.899	5898	3.832				
100	5968	3.821	7275	3.877	7280	3.806				
120	6603	3.795	8568	3.851	8222	3.784				
140	6765	3.768	8946	3.832	8328	3.762				
160	8021	3.750	8012	3.806	9495	3.739				
180	10406	3.735	9171	3.782	9639	3.712				
200	11062	3.717	10043	3.755	9983	3.685				
220	10346	3.691	9414	3.728	10699	3.656				
240	9962	3.670	11394	3.700	8866	3.623				
260	11772	3.648	11940	3.670	10872	3.601				
280	10779	3.623	11804	3.643	11659	3.575				
300	10836	3.601	11755	3.611	11304	3.547				
320	11733	3.575	11930	3.577	12467	3.518				
340	13077	3.553	11546	3.541	9753	3.487				
360	12003	3.523	12777	3.508	13368	3.462				
380	10627	3.491	11317	3.473	12442	3.433				
400	11410	3.468	13136	3.438	10959	3.396				
420	13224	3.441	12321	3.399	10951	3.364				
440	13751	3.417	12295	3.358	13117	3.333				
460	13602	3.382	14091	3.321	11661	3.295				
480	12551	3.357	12598	3.278	11862	3.258				



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