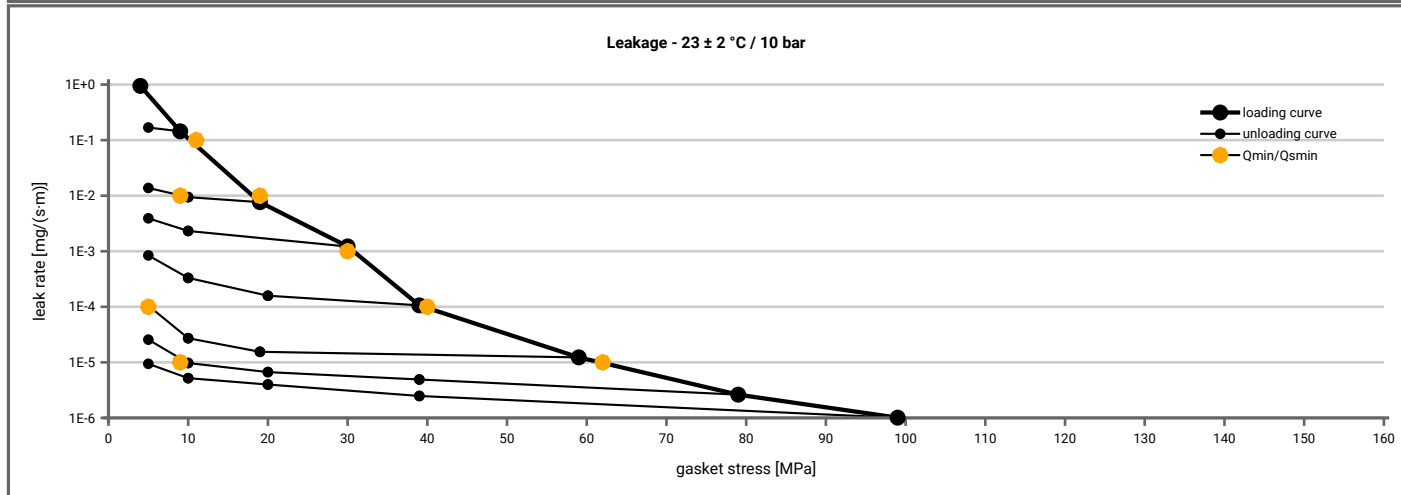
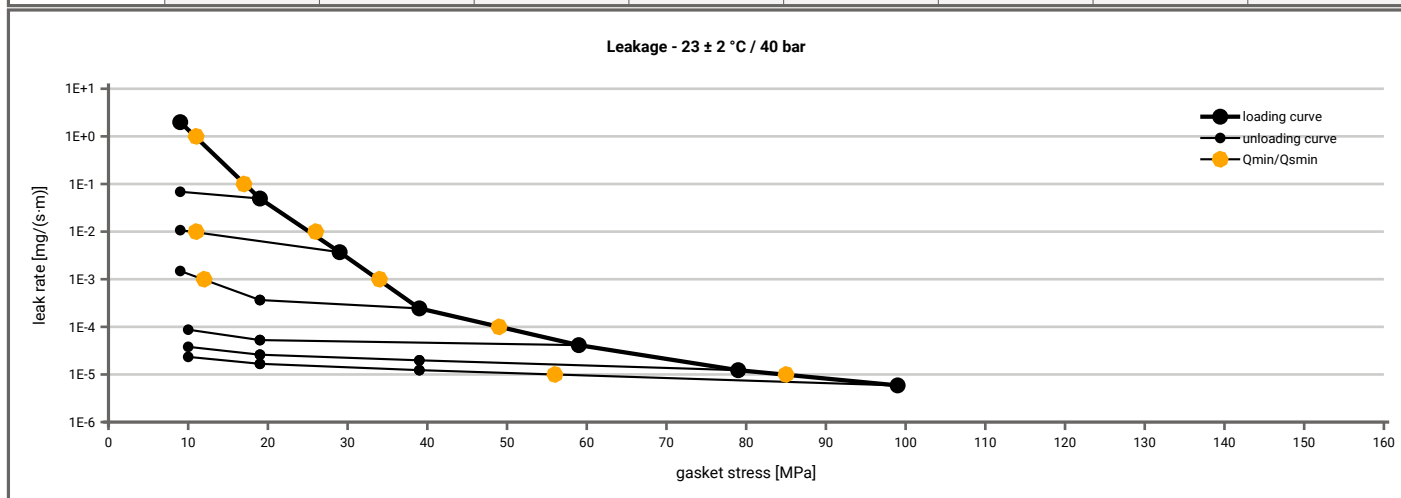


Manufacturer address	KLINGER GmbH, Richard Klinger Str. 37, 65510 Idstein, DE	According to DIN EN 13555 2014-7
Product name	KLINGER® top-chem2000soft	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

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]	$Q_A = 30$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [MPa]	$Q_A = 100$ [MPa]
1E-0	5		5	5	5	5	5	5	5
1E-1	11			5	5	5	5	5	5
1E-2	19			9	5	5	5	5	5
1E-3	31					5	5	5	5
1E-4	40						5	5	5
1E-5	63							10	5
1E-6									
1E-7									
1E-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]						
		$Q_A = 10$ [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]
1E+1	10		10	10	10	10	10	10
1E-0	12		10	10	10	10	10	10
1E-1	18		10	10	10	10	10	10
1E-2	26			11	10	10	10	10
1E-3	35				13	10	10	10
1E-4	50					10	10	10
1E-5	85							57
1E-6								
1E-7								
1E-8								

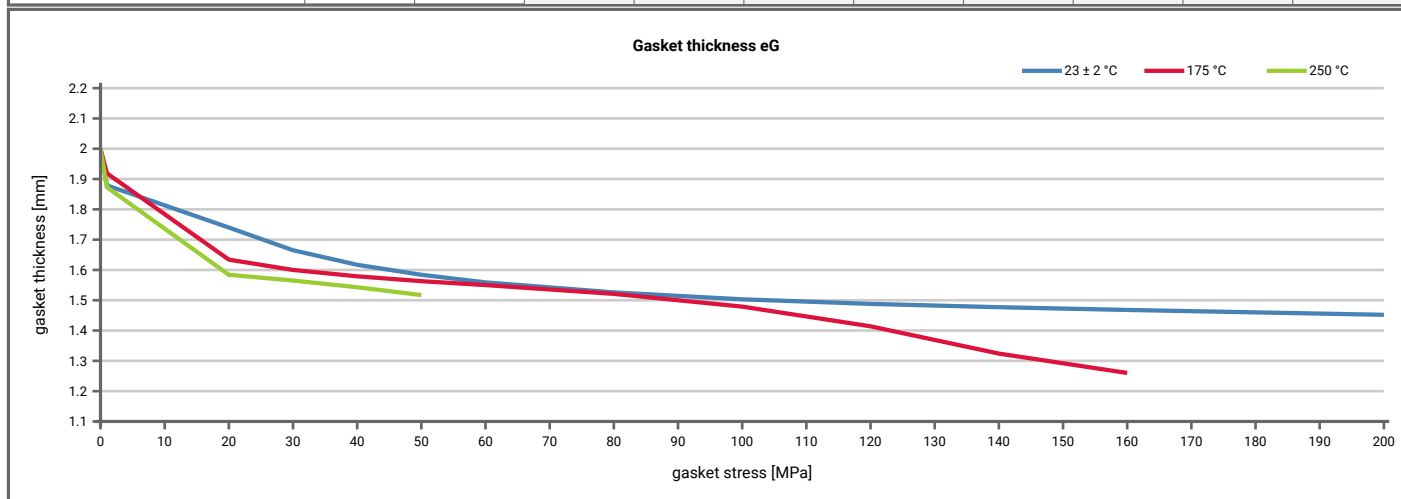


Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: 1	Creation date of this sheet: 2017-09-12
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Manufacturer address	KLINGER GmbH, Richard Klinger Str. 37, 65510 Idstein, DE	According to DIN EN 13555 2014-7
Product name	KLINGER® top-chem2000soft	
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 [175 °C]		Temperature 2 [250 °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]	0.92	21	0.70	76	0.67	83				
Stress level 2 [50 MPa]	0.95	21	0.87	55	0.85	63				
P _{QR} and Δe _{Gc} at maximum gasket stress to be applied Q _{smax}										
P _{QR} at Q _{smax}	0.99	17	0.83	235	0.85	63				
Q _{smax}	200 MPa		160 MPa		50 MPa					

Sekant unloading modulus of the gasket E _G [MPa] and gasket thickness e _G [mm]										
Gasket stress [MPa]	23 ± 2 °C		Temperature 1 [175 °C]		Temperature 2 [250 °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	2.000	0	2.000	0	2.000				
1	0	1.879	0	1.919	0	1.873				
20	2655	1.740	1983	1.634	1629	1.584				
30	3714	1.665	3290	1.600	2364	1.565				
40	4897	1.617	3988	1.579	2711	1.543				
50	6050	1.584	4406	1.563	2921	1.517				
60	6657	1.559	4974	1.550						
80	8548	1.526	4875	1.521						
100	9491	1.503	5503	1.479						
120	10294	1.488	5393	1.414						
140	10665	1.477	5361	1.324						
160	11020	1.468	5307	1.260						
180	10974	1.460								
200	10857	1.452								



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