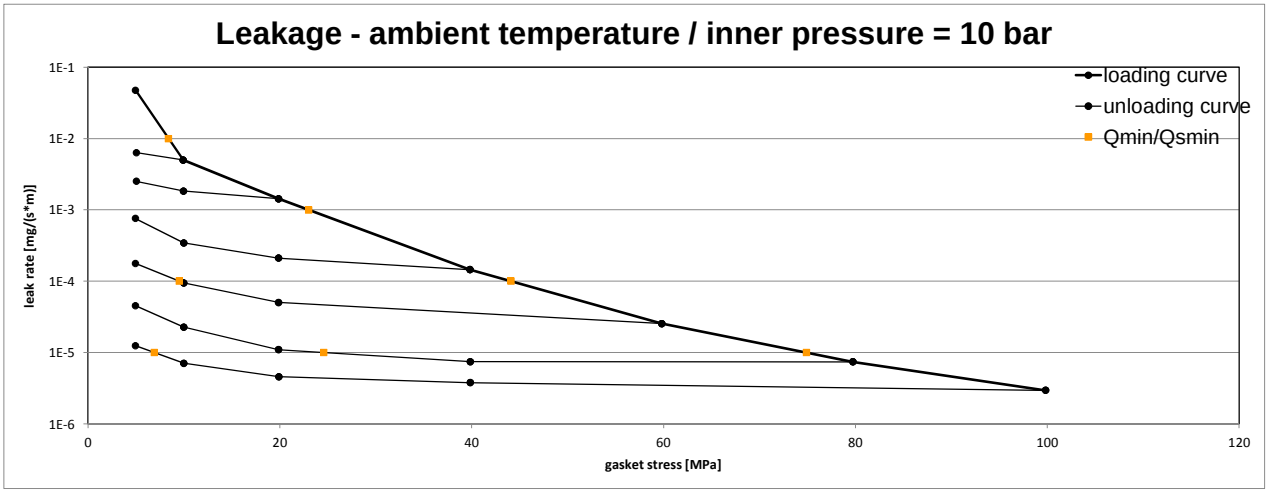
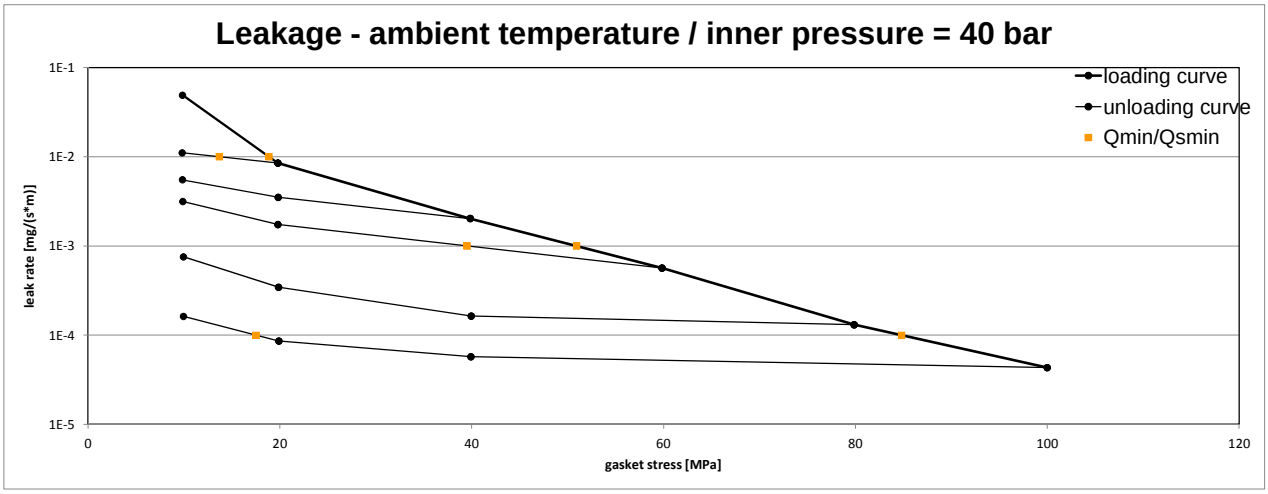
Company Address	*KLINGER® GmbH & Co. KG, Richard-Klinger-Straße 37, 65510 Idstein, Germany*
Gasket Type	*KLINGER® top-chem-2000*
Sealing element dimensions [mm]	*92 x 49 x 2*

L [mg/(s*m)]	$Q_{min/L}$ [MPa]	Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 10 bar $Q_{Smin/L}$ [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				
10^{-0}	5	5	5	5	5	5	5				
10^{-1}	5	5	5	5	5	5	5				
10^{-2}	8	5	5	5	5	5	5				
10^{-3}	23			5	5	5	5				
10^{-4}	44				10	5	5				
10^{-5}	75					25	7				
10^{-6}											
10^{-7}											
10^{-8}											



L [mg/(s*m)]	$Q_{min/L}$ [MPa]	Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 40 bar $Q_{Smin/L}$ [MPa]									
		Q_A= 20 MPa	Q_A= 40 MPa	Q_A= 60 MPa	Q_A= 80 MPa	Q_A= 100 MPa					
10^{-0}	10	10	10	10	10	10					
10^{-1}	10	10	10	10	10	10					
10^{-2}	19	14	10	10	10	10					
10^{-3}	51			40	10	10					
10^{-4}	85					18					
10^{-5}											
10^{-6}											
10^{-7}											
10^{-8}											



Note: the content of darkened cells was not determined respectively is unnecessary	Rev - No: 1	Creation date of this sheet:	*03.07.2012*

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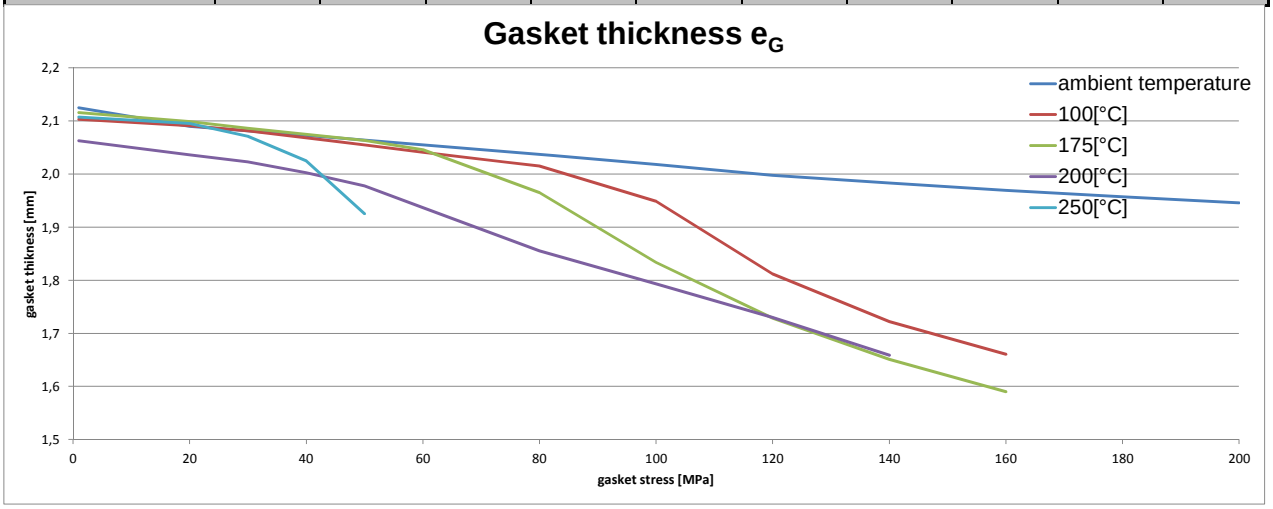
Company Address	*KLINGER® GmbH & Co. KG, Richard-Klinger-Straße 37, 65510 Idstein, Germany*
Gasket Type	*KLINGER® top-chem-2000*
Sealing element dimensions [mm]	*92 x 49 x 2*

Relaxation ratio P_{QR} for stiffness **C** = 500 kN/mm					
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [175 °C]	temperature 3 [200 °C]	temperature 4 [250 °C]
Stress level 1 [20 MPa]	0,98	0,96	0,97	0,97	0,97
Stress level 2 [50 MPa]	0,98	0,97	0,95	0,95	
PQR at Q_{Smax}	0,96 *at 200 MPa*	0,76 *at 160 MPa*	0,75 *at 160 MPa*	0,69 *at 140 MPa*	0,79 *at 50 MPa*

Maximal applicable gasket stress Q_{Smax}				
Q_{Smax} [MPa] ambient temperature	Q_{Smax} [MPa] – temperature 1 [100 °C]	Q_{Smax} [MPa] – temperature 2 [175 °C]	Q_{Smax} [MPa] – temperature 3 [200 °C]	Q_{Smax} [MPa] – temperature 4 [250 °C]
200	160	160	140	50

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	ambient temperature		temperature 1 [100 °C]		temperature 2 [175 °C]		temperature 3 [200 °C]		temperature 4 [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										
1		2,125		2,103		2,116		2,063		2,107
20	5036	2,090	2393	2,091	6959	2,099	4508	2,036	2070	2,095
30	4953	2,082	2696	2,081	5890	2,086	3632	2,023	2902	2,071
40	7575	2,072	3051	2,068	8072	2,075	5202	2,002	2992	2,025
50	7882	2,064	3783	2,055	10425	2,063	4802	1,978	3781	1,925
60	8470	2,056	5004	2,041	6944	2,046	4843	1,937		
80	7809	2,037	4867	2,015	6312	1,965	4680	1,855		
100	11485	2,018	4911	1,949	6131	1,833	5612	1,793		
120	9730	1,998	5860	1,812	6862	1,729	5719	1,730		
140	13447	1,983	6878	1,722	6106	1,651	5566	1,659		
160	11017	1,969	8217	1,660	7237	1,590				
180	14245	1,957								
200	15255	1,946								



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