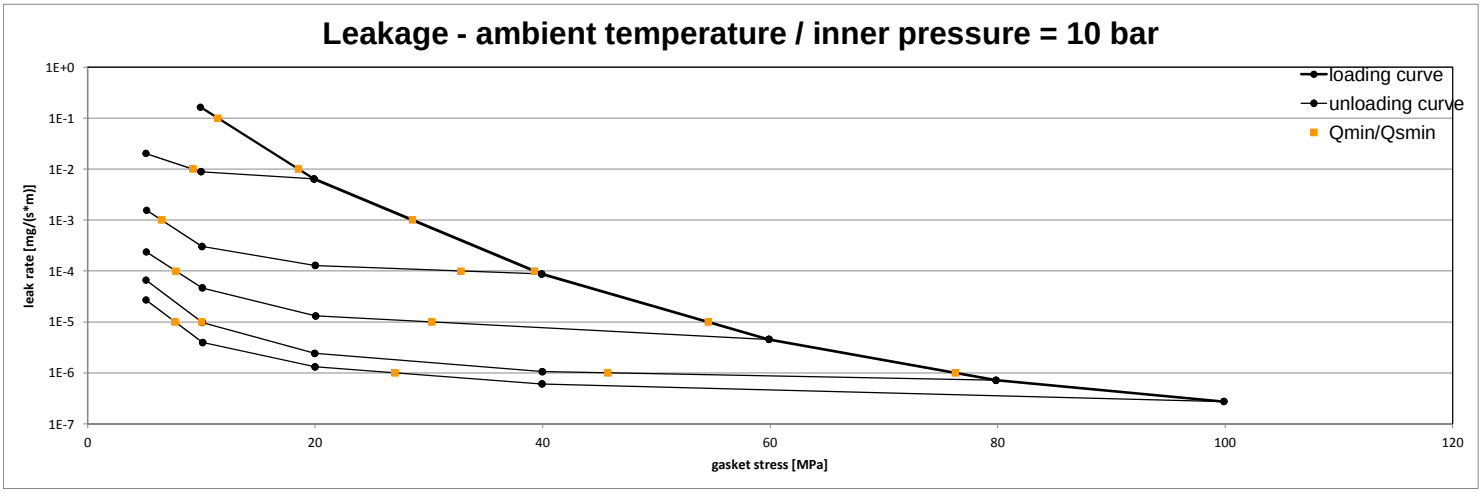
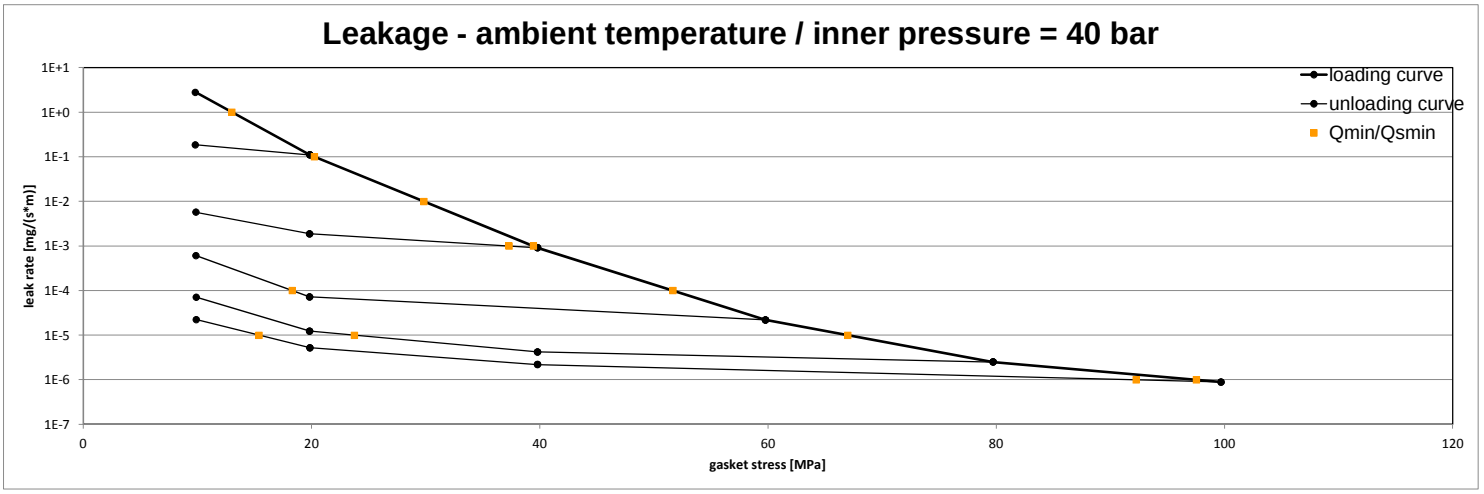
Company Address	*KLINGER® GmbH & Co. KG, Richard-Klinger-Straße 37, 65510 Idstein, Germany*
Gasket Type	*KLINGERSIL® C 4500*
Sealing element dimensions [mm]	*92 x 49 x 2*

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= 20 MPa	Q_A= 40 MPa	Q_A= 60 MPa	Q_A= 80 MPa	Q_A= 100 MPa							
10^{-0}	10	5	5	5	5	5							
10^{-1}	11	5	5	5	5	5							
10^{-2}	19	9	5	5	5	5							
10^{-3}	29		6	5	5	5							
10^{-4}	39		33	8	5	5							
10^{-5}	55			30	5	8							
10^{-6}	76				46	27							
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}	13	10	10	10	10	10							
10^{-1}	20		10	10	10	10							
10^{-2}	30		10	10	10	10							
10^{-3}	39		37	10	10	10							
10^{-4}	52			18	10	10							
10^{-5}	67				24	15							
10^{-6}	98					92							
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*

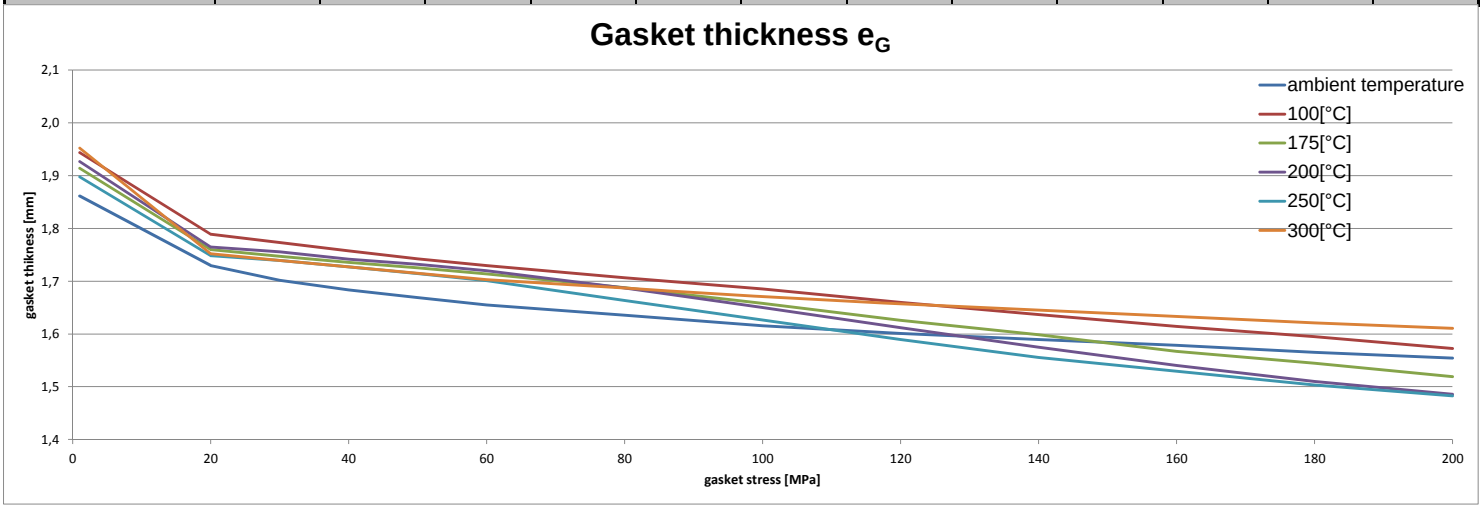
Center of Sealing Technologies, Bürgerkamp 3, 48565 Steinfurt, Germany

Company Address	*KLINGER® GmbH & Co. KG, Richard-Klinger-Straße 37, 65510 Idstein, Germany*
Gasket Type	*KLINGERSIL® C 4500*
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]	temperature 5 [300 °C]
Stress level 1 [25 MPa]	0,94	0,85	0,79	0,80	0,73	0,57
Stress level 2 [40 MPa]	0,95	0,88	0,86	0,85	0,79	0,68
PQR at Q_{Smax}	0,99 *at 200 MPa*	0,90 *at 200 MPa*	0,83 *at 200 MPa*	0,82 *at 200 MPa*	0,80 *at 200 MPa*	0,77 *at 200 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]	Q_{Smax} [MPa] – temperature 5 [300 °C]
200	200	200	200	200	200

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]		temperature 5 [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]	E_G [MPa]	e_G [mm]
0												
1		1,861		1,944		1,914		1,927		1,898		1,952
20	1144	1,730	1290	1,789	1961	1,760	2585	1,765	3541	1,748	2182	1,752
30	1862	1,702	2404	1,773	2805	1,747	3180	1,755	5929	1,739	5601	1,739
40	2984	1,684	2906	1,757	3306	1,736	3221	1,742	5504	1,727	6531	1,727
50	4589	1,669	3389	1,742	3429	1,726	4126	1,732	5287	1,714	6017	1,715
60	5429	1,655	4150	1,730	4164	1,714	5258	1,720	7704	1,701	5468	1,703
80	7618	1,635	5063	1,707	4545	1,688	4196	1,687	5821	1,664	6790	1,687
100	6515	1,616	5730	1,685	4822	1,658	4320	1,650	8054	1,627	7500	1,672
120	6991	1,601	5267	1,660	4439	1,626	4898	1,612	6514	1,590	6892	1,657
140	7515	1,589	5864	1,637	5854	1,599	4826	1,575	6564	1,555	7633	1,645
160	8272	1,579	6856	1,614	5041	1,567	5315	1,540	8060	1,529	8229	1,634
180	7210	1,565	7629	1,595	6278	1,544	5569	1,510	7909	1,504	8374	1,621
200	6552	1,554	7155	1,572	6603	1,519	6756	1,486	7989	1,482	8547	1,611



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