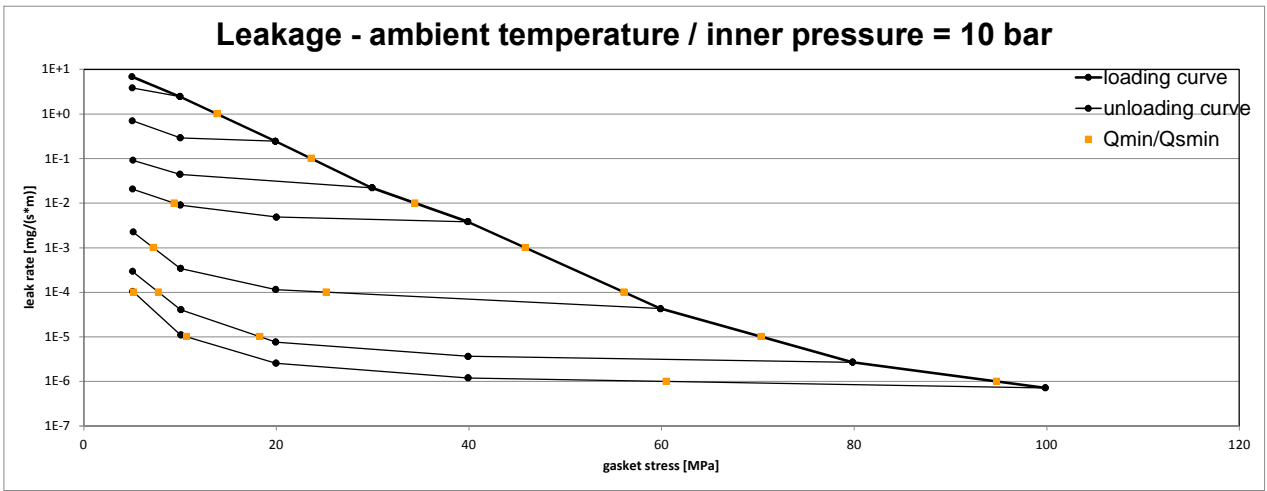
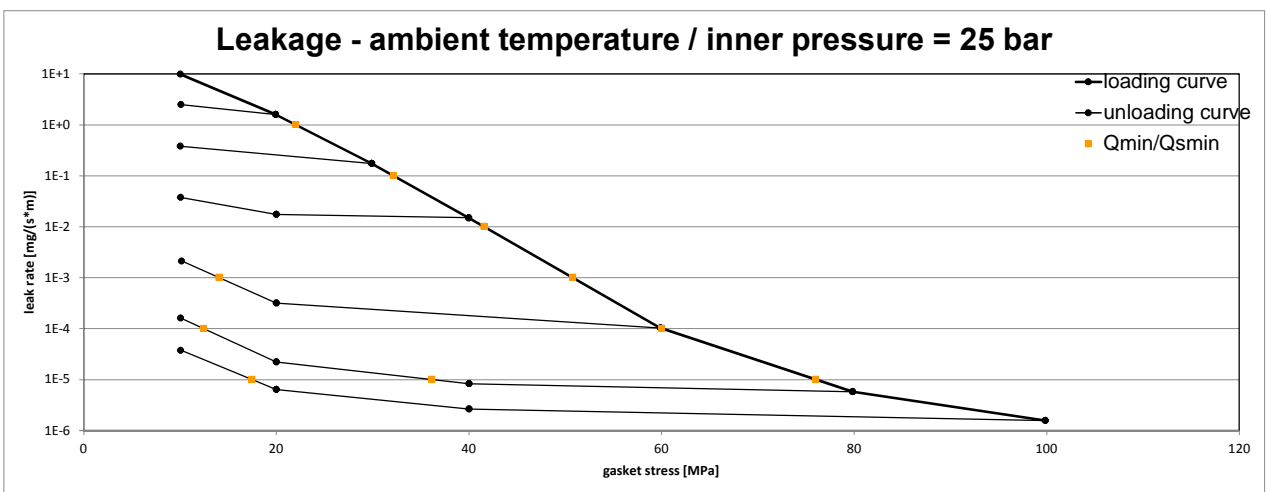


Company Address	KLINGER® GmbH & Co. KG, Richard-Klinger-Straße 37, 65510 Idstein, Germany	According to <b>DIN EN 13555</b> 2014-07
Gasket Type	KLINGERSIL® C4430plus	
Sealing element dimensions [mm]	92*49*3	

L [mg/(s*m)]	Q <sub>minL</sub> [MPa]	Minimum stress to seal Q <sub>minL</sub> (at assembly), Q <sub>SminL</sub> (after off-loading) for p = 10 bar							
		Q <sub>SminL</sub> [MPa]							
		Q <sub>A</sub> = 10 MPa	Q <sub>A</sub> = 20 MPa	Q <sub>A</sub> = 30 MPa	Q <sub>A</sub> = 40 MPa	Q <sub>A</sub> = 60 MPa	Q <sub>A</sub> = 80 MPa	Q <sub>A</sub> = 100 MPa	
10 <sup>0</sup>	14		5	5	5	5	5	5	
10 <sup>-1</sup>	24			5	5	5	5	5	
10 <sup>-2</sup>	34				9	5	5	5	
10 <sup>-3</sup>	46					7	5	5	
10 <sup>-4</sup>	56					25	8	5	
10 <sup>-5</sup>	70						18	11	
10 <sup>-6</sup>	95							61	



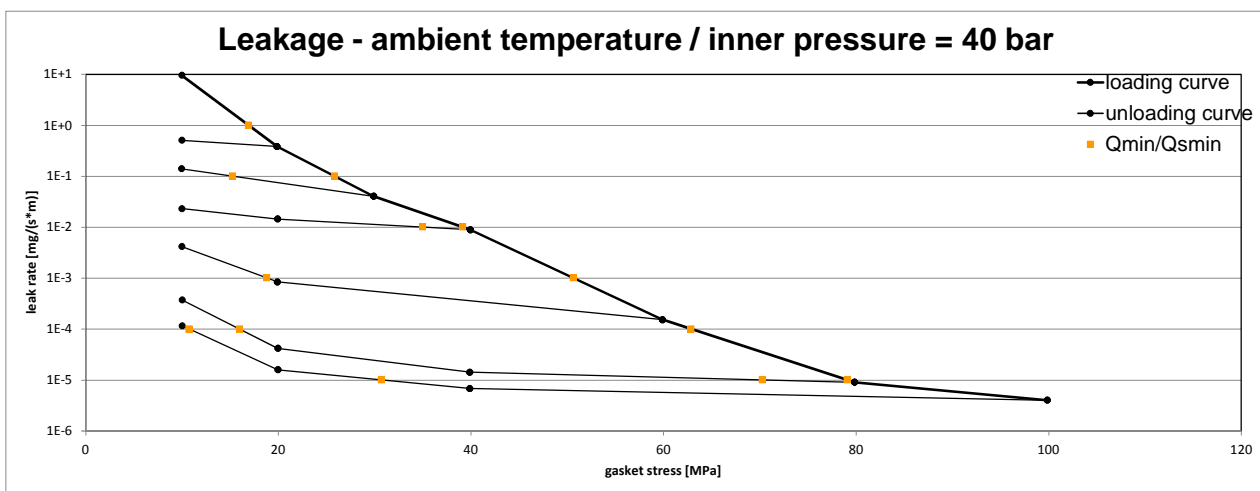
L [mg/(s*m)]	Q <sub>minL</sub> [MPa]	Minimum stress to seal Q <sub>minL</sub> (at assembly), Q <sub>SminL</sub> (after off-loading) for p = 25 bar					
		Q <sub>SminL</sub> [MPa]					
		Q <sub>A</sub> = 20 MPa	Q <sub>A</sub> = 30 MPa	Q <sub>A</sub> = 40 MPa	Q <sub>A</sub> = 60 MPa	Q <sub>A</sub> = 80 MPa	Q <sub>A</sub> = 100 MPa
10 <sup>0</sup>	22		10	10	10	10	10
10 <sup>-1</sup>	32			10	10	10	10
10 <sup>-2</sup>	42				10	10	10
10 <sup>-3</sup>	51				14	10	10
10 <sup>-4</sup>	60					12	10
10 <sup>-5</sup>	76					36	17



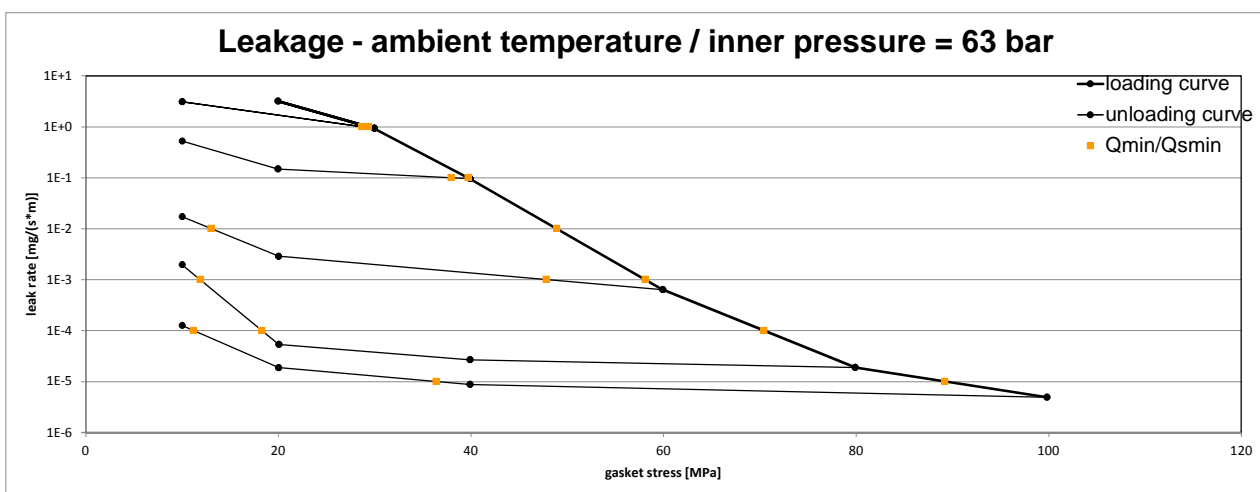
Note: the content of darkened cells was not determined respectively is unnecessary      Rev - No: 2      Creation date of this sheet: 2016-01-21

Company Address	KLINGER® GmbH & Co. KG, Richard-Klinger-Straße 37, 65510 Idstein, Germany	According to <b>DIN EN 13555</b> 2014-07
Gasket Type	KLINGERSIL® C4430plus	
Sealing element dimensions [mm]	92*49*3	

L [mg/(s*m)]	Q <sub>min/L</sub> [MPa]	Minimum stress to seal Q <sub>min/L</sub> (at assembly), Q <sub>Smin/L</sub> (after off-loading) for p = 40 bar									
		Q <sub>Smin/L</sub> [MPa]									
		Q <sub>A</sub> = 20 MPa	Q <sub>A</sub> = 30 MPa	Q <sub>A</sub> = 40 MPa	Q <sub>A</sub> = 60 MPa	Q <sub>A</sub> = 80 MPa	Q <sub>A</sub> = 100 MPa				
10 <sup>-0</sup>	17	10	10	10	10	10	10				
10 <sup>-1</sup>	26		15	10	10	10	10				
10 <sup>-2</sup>	39			35	10	10	10				
10 <sup>-3</sup>	51				19	10	10				
10 <sup>-4</sup>	63					16	11				
10 <sup>-5</sup>	79					70	31				



L [mg/(s*m)]	Q <sub>min/L</sub> [MPa]	Minimum stress to seal Q <sub>min/L</sub> (at assembly), Q <sub>Smin/L</sub> (after off-loading) for p = 63 bar									
		Q <sub>Smin/L</sub> [MPa]									
		Q <sub>A</sub> = 30 MPa	Q <sub>A</sub> = 30 MPa	Q <sub>A</sub> = 40 MPa	Q <sub>A</sub> = 60 MPa	Q <sub>A</sub> = 80 MPa	Q <sub>A</sub> = 100 MPa				
10 <sup>-0</sup>	29	29	29	10	10	10	10				
10 <sup>-1</sup>	40			38	10	10	10				
10 <sup>-2</sup>	49				13	10	10				
10 <sup>-3</sup>	58				48	12	10				
10 <sup>-4</sup>	70					18	11				
10 <sup>-5</sup>	89						36				

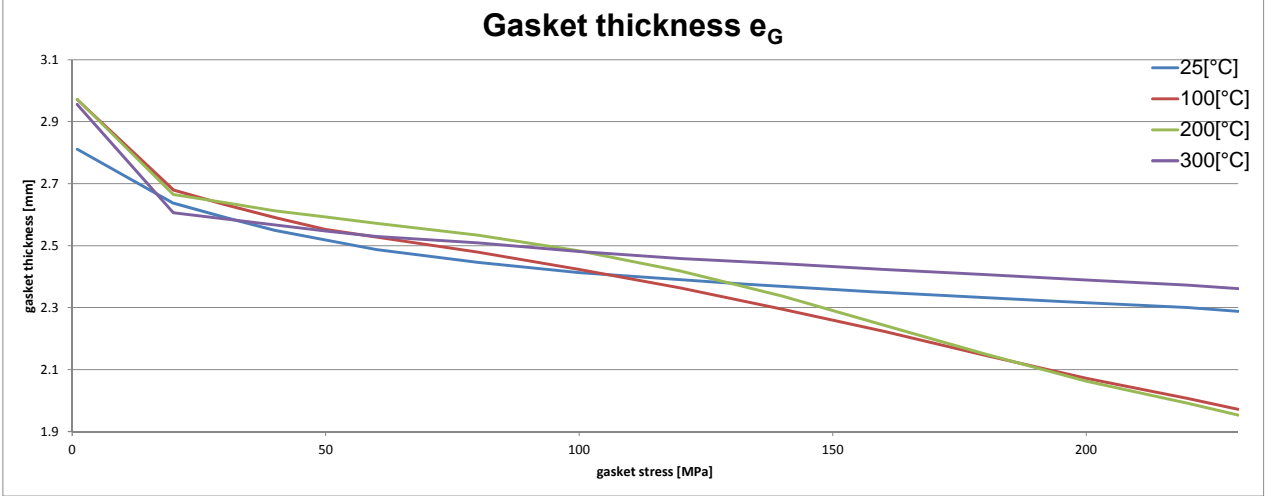


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Company Address	KLINGER® GmbH & Co. KG, Richard-Klinger-Straße 37, 65510 Idstein, Germany	According to <b>DIN EN 13555</b> 2014-07
Gasket Type	KLINGERSIL® C4430plus	
Sealing element dimensions [mm]	92*49*3	

Relaxation ratio $P_{QR}$ for stiffness $C = 500$ kN/mm										
Gasket stress	temperature 1 [25 °C]		temperature 2 [100 °C]		temperature 3 [200 °C]		temperature 4 [300 °C]			
	$P_{QR}$	$\Delta e_{Gc}$ [mm]	$P_{QR}$	$\Delta e_{Gc}$ [mm]	$P_{QR}$	$\Delta e_{Gc}$ [mm]	$P_{QR}$	$\Delta e_{Gc}$ [mm]		
Stress level 1 [30 MPa]	0.91	0.024	0.70	0.076	0.64	0.092	0.46	0.137		
Stress level 2 [50 MPa]	0.93	0.029	0.79	0.090	0.73	0.113	0.55	0.189		
<b><math>P_{QR}</math> and <math>\Delta e_{Gc}</math> at maximal applicable gasket stress <math>Q_{Smax}</math></b>										
$P_{QR}$ at $Q_{Smax}$	0.99	0.029	0.84	0.309	0.75	0.483	0.68	0.618		
$Q_{Smax}$	230 MPa		230 MPa		230 MPa		230 MPa			

Sekant unloading modulus of the gasket $E_G$ [MPa] and gasket thickness $e_G$ [mm]										
Gasket stress [MPa]	temperature 1 [25 °C]		temperature 2 [100 °C]		temperature 3 [200 °C]		temperature 4 [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]		
0		3.000		3.000		3.000		3.000		
1		2.811		2.972		2.973		2.957		
20	996	2.637	1225	2.680	1721	2.665	4079	2.606		
30	1606	2.592	1600	2.632	2084	2.639	5789	2.587		
40	1927	2.549	2356	2.591	2381	2.612	5718	2.567		
50	2829	2.518	2393	2.552	3137	2.592	5521	2.547		
60	3021	2.487	3676	2.527	3665	2.572	5816	2.530		
80	4228	2.446	4606	2.479	4921	2.534	9099	2.509		
100	5312	2.413	5488	2.423	4626	2.483	6217	2.482		
120	6712	2.390	6207	2.363	5142	2.418	6294	2.459		
140	7924	2.369	6421	2.295	5682	2.337	8284	2.441		
160	8114	2.349	7915	2.224	5512	2.243	9139	2.423		
180	8467	2.332	7112	2.146	6017	2.151	9598	2.407		
200	8759	2.316	7059	2.071	5924	2.063	9159	2.389		
220	9362	2.300	7537	2.007	6418	1.991	9413	2.372		
230	9280	2.288	7655	1.972	6418	1.953	9531	2.362		



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