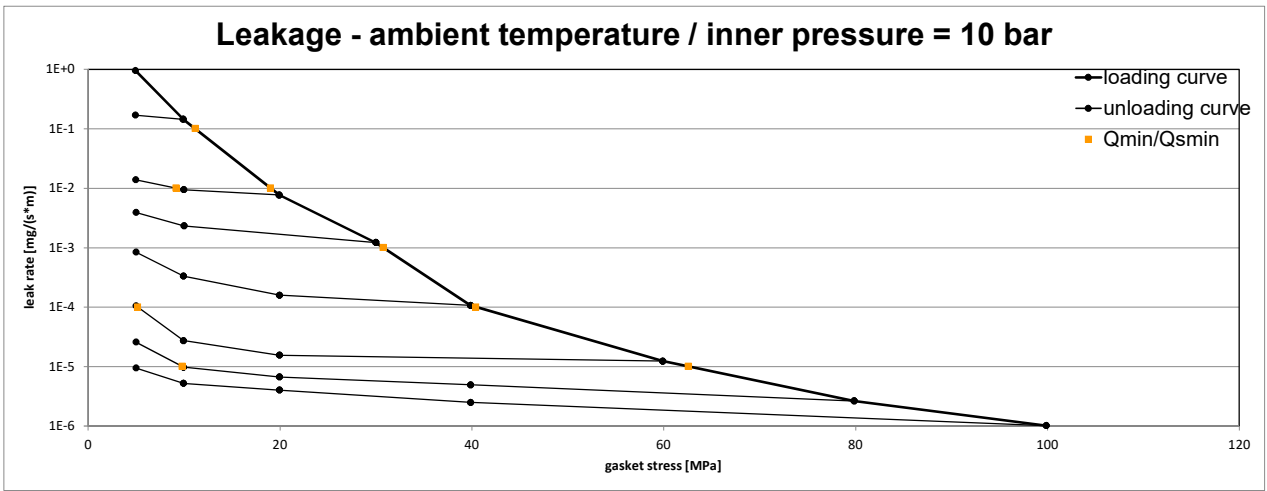
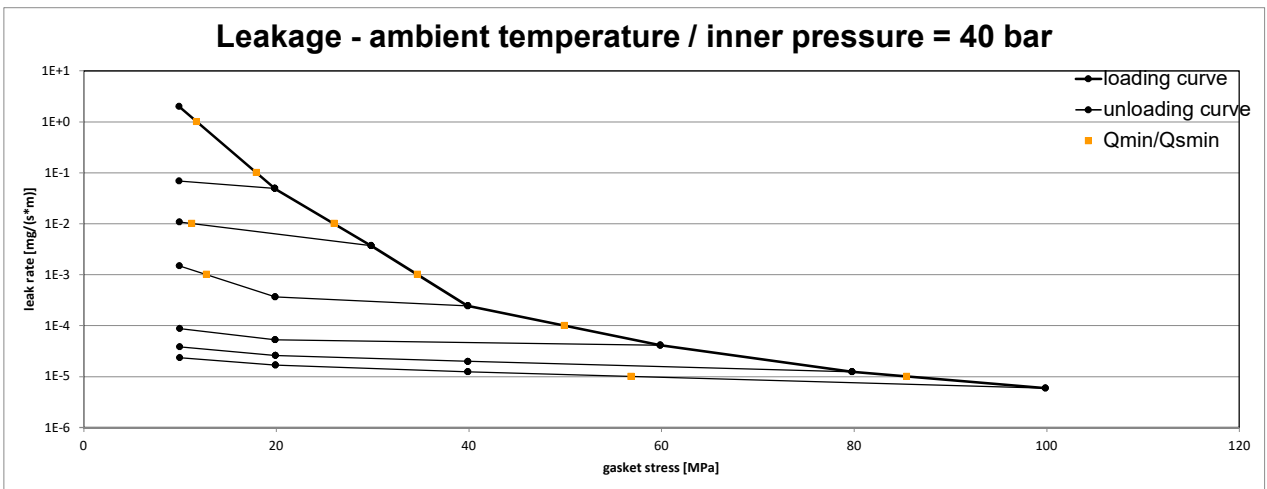


Company Address	KLINGER GmbH, Richard-Klinger-Straße 37, 65510 Idstein, Germany	According to <b>DIN EN 13555</b> 2014-07
Gasket Type	KLINGER® top-chem2000soft	
Sealing element dimensions [mm]	92 x 49 x 2	

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 = 10 bar							
		Q <sub>Smin/L</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>	5	5	5	5	5	5	5	5	
10 <sup>-1</sup>	11		5	5	5	5	5	5	
10 <sup>-2</sup>	19		9	5	5	5	5	5	
10 <sup>-3</sup>	31				5	5	5	5	
10 <sup>-4</sup>	40					5	5	5	
10 <sup>-5</sup>	63						10	5	
10 <sup>-6</sup>									
10 <sup>-7</sup>									
10 <sup>-8</sup>									



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>	12	10	10	10	10	10	10	
10 <sup>-1</sup>	18	10	10	10	10	10	10	
10 <sup>-2</sup>	26		11	10	10	10	10	
10 <sup>-3</sup>	35			13	10	10	10	
10 <sup>-4</sup>	50				10	10	10	
10 <sup>-5</sup>	85						57	
10 <sup>-6</sup>								
10 <sup>-7</sup>								
10 <sup>-8</sup>								

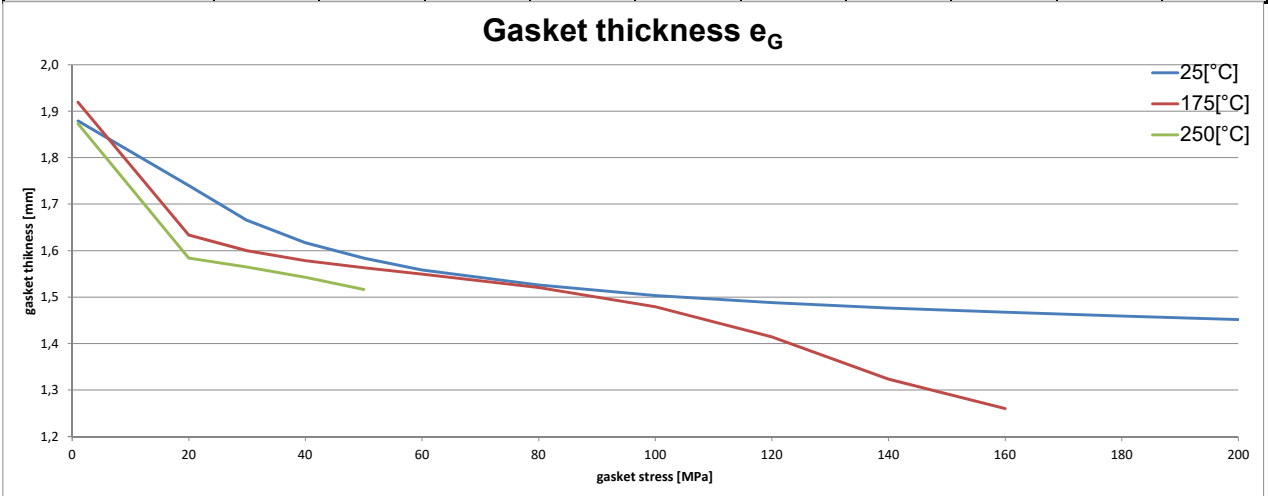


Note: the content of darkened cells was not determined respectively is unnecessary      Rev - No: 1      Creation date of this sheet: 2017-09-12

Company Address	KLINGER GmbH, Richard-Klinger-Straße 37, 65510 Idstein, Germany	According to <b>DIN EN 13555 2014-07</b>
Gasket Type	KLINGER® top-chem2000soft	
Sealing element dimensions [mm]	92 x 49 x 2	

Relaxation ratio $P_{QR}$ for stiffness $C = 500 \text{ kN/mm}$										
Gasket stress	temperature 1 [25 °C]		temperature 2 [175 °C]		temperature 3 [250 °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]	$P_{QR}$	$\Delta e_{Gc}$ [mm]
Stress level 1 [30 MPa]	0.92	0.021	0.70	0.076	0.67	0.083				
Stress level 2 [50 MPa]	0.95	0.021	0.87	0.055	0.85	0.063				
$P_{QR}$ and $\Delta e_{Gc}$ at maximal applicable gasket stress $Q_{Smax}$										
$P_{QR}$ at $Q_{Smax}$	0.99	0.017	0.83	0.235	0.85	0.063				
$Q_{Smax}$	200 MPa		160 MPa		50 MPa					

Sekant unloading modulus of the gasket $E_G$ [MPa] and gasket thickness $e_G$ [mm]										
Gasket stress [MPa]	temperature 1 [25 °C]		temperature 2 [175 °C]		temperature 3 [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		2.000		2.000		2.000				
1		1.879		1.920		1.873				
20	2655	1.740	1982	1.634	1628	1.584				
30	3714	1.665	3290	1.600	2364	1.565				
40	4897	1.617	3987	1.579	2711	1.543				
50	6049	1.584	4406	1.563	2921	1.517				
60	6656	1.559	4974	1.550						
80	8547	1.526	4875	1.521						
100	9491	1.504	5502	1.479						
120	10293	1.488	5392	1.414						
140	10665	1.477	5361	1.324						
160	11019	1.468	5307	1.260						
180	10974	1.460								
200	10856	1.452								



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