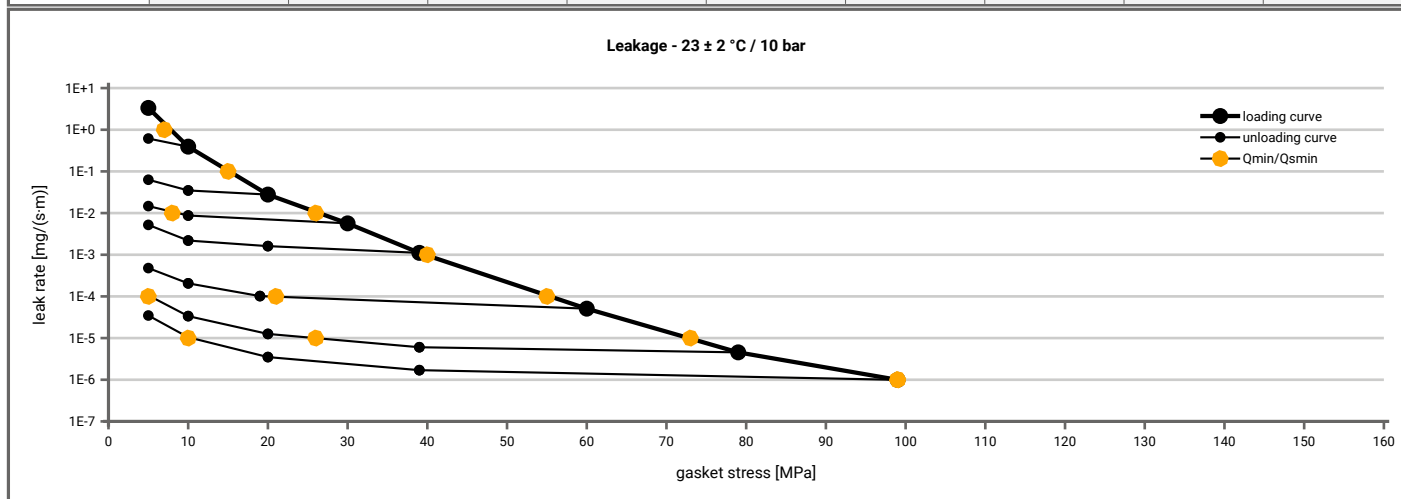
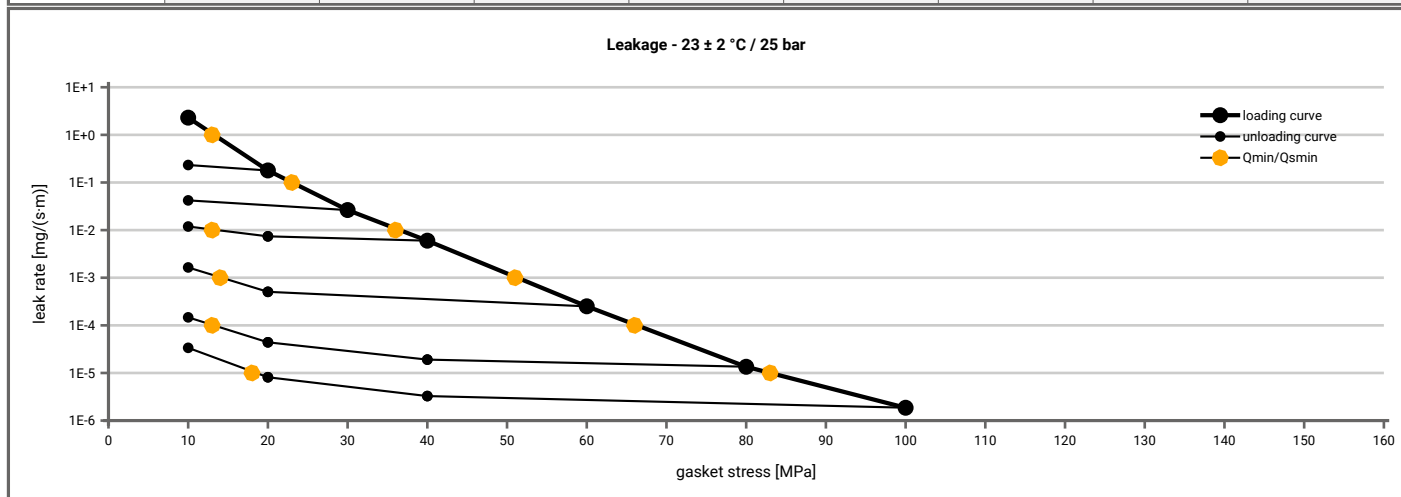


Manufacturer address	KLINGER GmbH, Richard Klinger Str. 37, 65510 Idstein, DE	According to DIN EN 13555 2014-7
Product name	KLINGERSIL® C4430	
Product dimensions	92 x 49 x 3 mm (DIN EN 1514-1 1997-8)	

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+1	5		5	5	5	5	5	5	5
1E-0	8		5	5	5	5	5	5	5
1E-1	15			5	5	5	5	5	5
1E-2	26				9	5	5	5	5
1E-3	41						5	5	5
1E-4	56						21	5	5
1E-5	73							26	10
1E-6	100								99
1E-7									
1E-8									



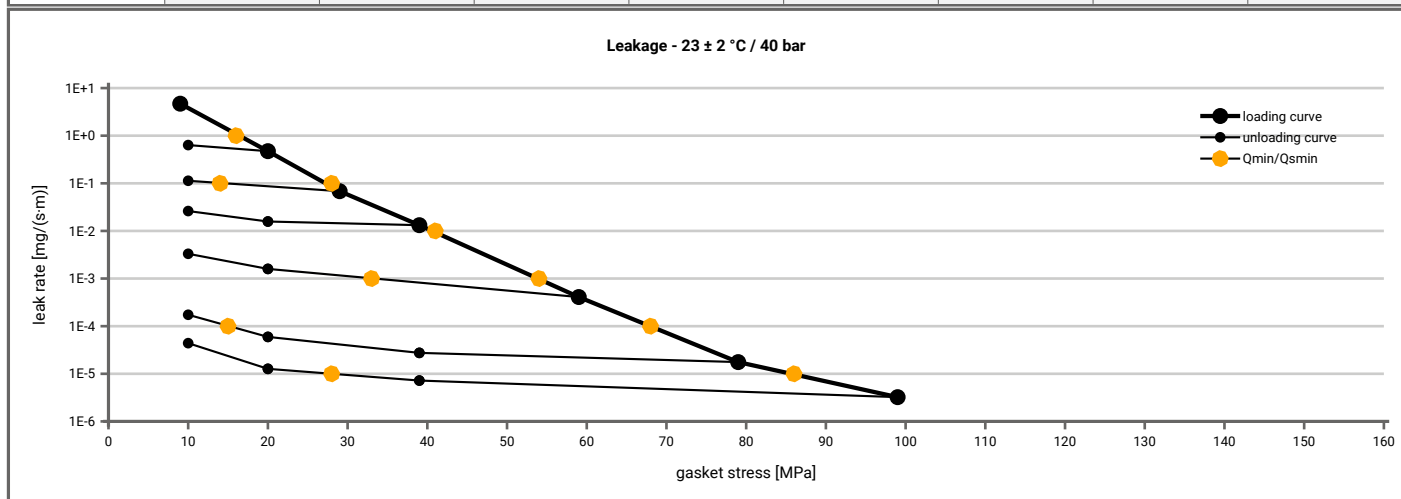
Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for $p = 25$ bar ($T = 23 \pm 2$ °C)								
L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]						
		$Q_A = 10$ [MPa]	$Q_A = 20$ [MPa]	$Q_A = 30$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [MPa]	$Q_A = 100$ [MPa]
1E+1	10		10	10	10	10	10	10
1E-0	13		10	10	10	10	10	10
1E-1	23			10	10	10	10	10
1E-2	37				14	10	10	10
1E-3	51					14	10	10
1E-4	66						13	10
1E-5	83							19
1E-6								
1E-7								
1E-8								



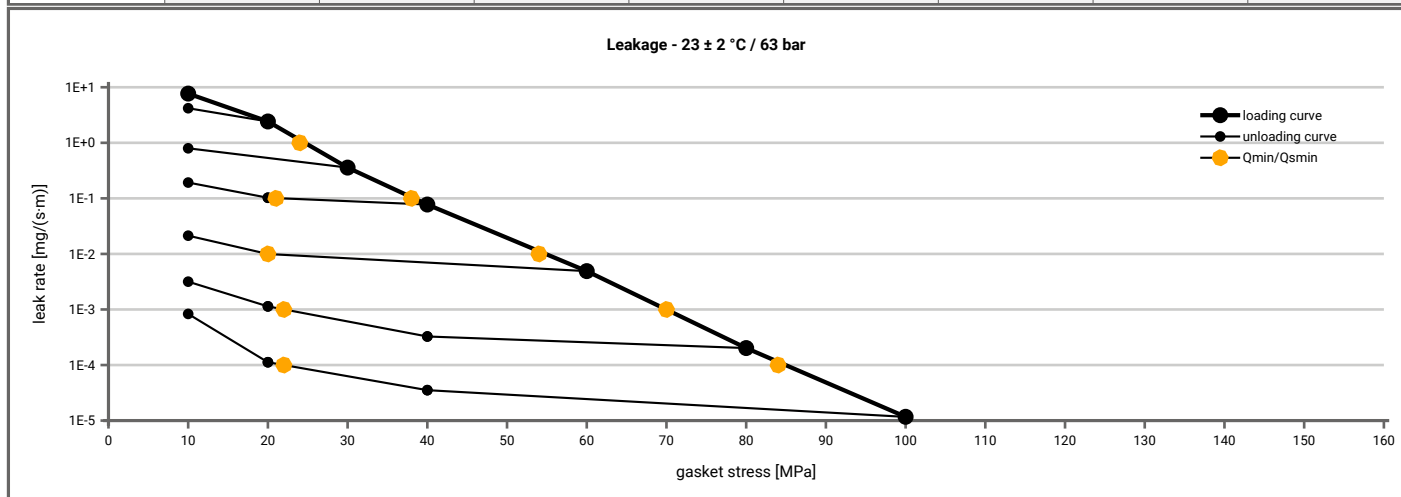
Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: 1	Creation date of this sheet: 2016-01-14
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Manufacturer address	KLINGER GmbH, Richard Klinger Str. 37, 65510 Idstein, DE	According to DIN EN 13555 2014-7
Product name	KLINGERSIL® C4430	
Product dimensions	92 x 49 x 3 mm (DIN EN 1514-1 1997-8)	

Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for $p = 40$ bar ($T = 23 \pm 2$ °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	17		10	10	10	10	10	10
1E-1	28			15	10	10	10	10
1E-2	42					10	10	10
1E-3	55					34	10	10
1E-4	69						15	10
1E-5	87							28
1E-6								
1E-7								
1E-8								



Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for $p = 63$ bar ($T = 23 \pm 2$ °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	25			10	10	10	10	10
1E-1	38				22	10	10	10
1E-2	55					20	10	10
1E-3	70						22	10
1E-4	85							22
1E-5								
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: 2016-01-14
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Manufacturer address	KLINGER GmbH, Richard Klinger Str. 37, 65510 Idstein, DE	According to DIN EN 13555 2014-7
Product name	KLINGERSIL® C4430	
Product dimensions	92 x 49 x 3 mm (DIN EN 1514-1 1997-8)	

Relaxation ratio P_{QR} for stiffness $C = 500$ [kN/mm]										
Gasket stress	23 ± 2 °C		Temperature 1 [100 °C]		Temperature 2 [200 °C]		Temperature 3 [300 °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]	0.95	14	0.89	29	0.85	38	0.55	115		
Stress level 2 [50 MPa]	0.95	21	0.89	46	0.82	76	0.63	155		
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	0.98	34	0.87	218	0.77	394	0.69	529		
Q_{smax}	200 MPa		200 MPa		200 MPa		200 MPa			

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	23 ± 2 °C		Temperature 1 [100 °C]		Temperature 2 [200 °C]		Temperature 3 [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]
0	0	3.000	0	3.000	0	3.000	0	3.000		
1	0	2.790	0	2.804	0	2.818	0	2.808		
20	1473	2.631	2129	2.622	5407	2.637	10519	2.589		
30	1607	2.582	2605	2.594	3717	2.618	9718	2.569		
40	2726	2.551	2897	2.564	3598	2.594	8225	2.553		
50	2428	2.513	3860	2.539	3908	2.566	6997	2.536		
60	3514	2.487	3876	2.509	4452	2.531	6557	2.521		
80	4635	2.444	5009	2.440	4652	2.435	7291	2.499		
100	4635	2.403	4779	2.364	4845	2.319	6965	2.476		
120	6756	2.377	5613	2.290	4814	2.217	8330	2.457		
140	8367	2.354	5714	2.223	5206	2.118	7813	2.435		
160	7699	2.330	6272	2.165	5454	2.036	7711	2.416		
180	7971	2.309	6883	2.117	6162	1.986	8930	2.398		
200	8322	2.288	6596	2.072	5858	1.942	9486	2.381		

