

Company Address	Klinger GmbH, Rich.-Klinger-Straße 37, 65510 Idstein
Gasket Type	KLINGERSIL® C-4430
Thickness e _{GO} [mm]	2 mm

Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 10 bar									
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [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]	$Q_A = 120$ [MPa]	$Q_A = 140$ [MPa]
10 ⁻⁰									
10 ⁻¹	10		<5	<5	<5	<5	<5		
10 ⁻²	19		14	<5	<5	<5	<5		
10 ⁻³	32			11	<5	<5	<5		
10 ⁻⁴	48				12	7	<5		
10 ⁻⁵	67					19	12		
10 ⁻⁶	97						81		
10 ⁻⁷									
10 ⁻⁸									

Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 40 bar									
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]							
		$Q_A = 20$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [MPa]	$Q_A = 100$ [MPa]	$Q_A = 120$ [MPa]	$Q_A = 140$ [MPa]	$Q_A = 160$ [MPa]
10 ⁻⁰	12	<10	<10	<10	<10	<10			
10 ⁻¹	21		<10	<10	<10	<10			
10 ⁻²	33		<10	<10	<10	<10			
10 ⁻³	45			<10	<10	<10			
10 ⁻⁴	57			32	<10	<10			
10 ⁻⁵	73				28	16			
10 ⁻⁶									
10 ⁻⁷									
10 ⁻⁸									

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm						
Gasket stress [MPa]	t _{room} [20 °C]	t 1 [100 °C]	t 2 [175 °C]	t 3 [200 °C]	t 4 [250 °C]	t 5 [300 °C]
Stress level 1 [30 MPa]		0,90	0,87	0,85	0,79	0,67
Stress level 2 [50 MPa]		0,94	0,91	0,92	0,87	0,80
Q_{Smax} [200 MPa]		0,93	0,91	0,90	0,88	0,85

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_c [MPa]						
Gasket stress [MPa]	t _{room} [20 °C]	t 1 [100 °C]	t 2 [175 °C]	t 3 [200 °C]	t 4 [250 °C]	t 5 [300 °C]
20	1085	1572	2066	1675	1675	2871
30	1679	1589	2331	2353	2326	3133
40	2115	1930	2234	2219	2719	5100
50	2285	2593	2762	2611	3004	4718
60	3420	3244	3468	3282	3600	4845
80	4737	3582	3284	3768	4294	5966
100	5299	4612	4527	4130	5314	6530
120	4728	4383	5383	4731	4572	3018
140	5271	4731	4595	4909	4492	6121
160	5783	5344	5201	5050	5772	6955
180			5186	5005	5663	6941
200					5711	7135
220						
225						

Note: the content of darkened cells was not determined respectively is unnecessary

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