

Company Address	Klinger GmbH, Rich.-Klinger-Straße 37, 65510 Idstein
Gasket Type	KLINGERSIL® C-4400
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]
$10^0$	6	<5	<5	<5	<5	<5	<5		
$10^{-1}$	11		<5	<5	<5	<5	<5		
$10^{-2}$	19		14	<5	<5	<5	<5		
$10^{-3}$	31			8	<5	<5	<5		
$10^{-4}$	44				9	<5	<5		
$10^{-5}$	58				51	14	9		
$10^{-6}$	82						39		
$10^{-7}$									
$10^{-8}$									

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]
$10^0$	10	<10	<10	<10	<10	<10			
$10^{-1}$	18	<10	<10	<10	<10	<10			
$10^{-2}$	29		<10	<10	<10	<10			
$10^{-3}$	42			<10	<10	<10			
$10^{-4}$	55			19	<10	<10			
$10^{-5}$	71				25	16			
$10^{-6}$									
$10^{-7}$									
$10^{-8}$									

Relaxation ratio $P_{QR}$ for stiffness $C = 500$ kN/mm					
Gasket stress [MPa]	ambient temperature	t 1 [100 °C]	t 2 [175 °C]	t 3 [200 °C]	t 4 [250 °C]
Stress level 1 [ 30 MPa]		0,87	0,77	0,76	0,69
Stress level 2 [ 50 MPa]		0,91	0,87	0,84	0,81
$Q_{Smax}$ [200 MPa]		0,92	0,84	0,84	0,83

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]
> 200	> 200	> 200	> 200	> 200

Sekant unloading modulus of the gasket $E_G$ [MPa]					
Gasket stress [MPa]	$t_{room}$ [20 °C]	t 1 [100 °C]	t 2 [175 °C]	t 3 [200 °C]	t 4 [250 °C]
20	778	997	1727	1500	1732
30	1431	1411	2115	1781	2234
40	1666	1855	2147	2488	2466
50	2509	2093	2410	2623	2880
60	2863	2498	2758	2347	3275
80	3187	3130	3174	3287	4099
100	4246	3680	4326	3880	4058
120	4675	3903	4072	3618	4067
140	4541	2817	3968	4123	4682
160	4843	4398	4428	4239	5128
180				4427	4783
200					4520
220					
225					

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

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