

Company Address	Klinger GmbH, Rich.-Klinger-Straße 37, 65510 Idstein
Gasket Type	KLINGERSIL® C-4300
Thickness e_{G0} [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}	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
10^{-1}	9	6	< 5	< 5	< 5	< 5	< 5		
10^{-2}	18		9	< 5	< 5	< 5	< 5		
10^{-3}	30			6	< 5	< 5	< 5		
10^{-4}	43				7	< 5	< 5		
10^{-5}	58				43	10	6		
10^{-6}	78					58	27		
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^{-1}	18	<10	<10	<10	<10	<10			
10^{-2}	28		<10	<10	<10	<10			
10^{-3}	37		30	<10	<10	<10			
10^{-4}	49			<10	<10	<10			
10^{-5}	58			39	11	<10			
10^{-6}	72				47	42			
10^{-7}									
10^{-8}									

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm				
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [175 °C]	temperature 3 [200 °C]
Stress level 1 [30 MPa]		0,84	0,77	0,78
Stress level 2 [50 MPa]		0,82	0,69	0,66
Q_{Smax} [200 MPa]		0,87	0,80	0,78

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]
> 200	> 200	> 200	> 200

Sekant unloading modulus of the gasket E_G [MPa]				
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [175 °C]	temperature 3 [200 °C]
20	749	952	1582	1397
30	1332	1545	1501	1597
40	2111	1946	1729	2014
50	2253	2283	2292	2344
60	2691	2321	2588	2765
80	3871	2903	2903	2604
100	3848	3525	3337	3199
120	4759	3532	3829	3027
140	4893	3907	2999	3531
160	4419	4517	3404	4192
180			3450	3055
200				3887
220				
225				

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

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