

Company Address	Klinger GmbH, Rich.-Klinger-Strasse 37, 65510 Idstein, Deutschland
Gasket Type	Klinger Graphite Laminate TSM200B (TA-Luft)
Thickness e_{GO} [mm]	2.0 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]	$Q_A = 160$ [MPa]
10^0	< 5	< 5	< 5	< 5	< 5	< 5			
10^{-1}	< 5	< 5	< 5	< 5	< 5	< 5			
10^{-2}	8	6	< 5	< 5	< 5	< 5			
10^{-3}	19		8	< 5	< 5	< 5			
10^{-4}	35			8	11	< 5			
10^{-5}									
10^{-6}									
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^{-1}	< 10	< 10	< 10	< 10	< 10				
10^{-2}	15	< 10	< 10	< 10	< 10				
10^{-3}	24	< 10	< 10	< 10	< 10				
10^{-4}	32		22	11	< 10				
10^{-5}									
10^{-6}									
10^{-7}									
10^{-8}									

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm			
Gasket stress [MPa]	ambient temperature	temperature 1 [150°C]	temperature 2 [300°C]
Stress level 1 [30 MPa]	0,97	0,92	0,84
Stress level 2 [50 MPa]	0,99	0,93	0,92
Q_{Smax} [80 / 100 / 80 MPa]	0,99	0,97	0,92

Maximal applicable gasket stress Q_{Smax}		
Q_{Smax} [MPa] – ambient temperature	Q_{Smax} [MPa] – temperature 1 [150°C]	Q_{Smax} [MPa] – temperature 2 [300°C]
80	100	80

Sekant unloading modulus of the gasket E_G [MPa]			
Gasket stress [MPa]	ambient temperature	temperature 1 [150°C]	temperature 2 [300°C]
20	424	430	445
30	701	674	629
40	1067	965	905
50	1422	1259	1264
60	1979	1768	1585
80	2787	2607	2395
100		3434	
120			
140			
160			
180			
200			
220			
225			

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

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