

Company Address	Klinger GmbH, Rich.-Klinger-Strasse 37, 65510 Idstein, Deutschland
Gasket Type	Klinger Graphite Laminate TSM150B (TA-Luft)
Thickness e_{GO} [mm]	1.5 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}	< 5	< 5	< 5	< 5	< 5	< 5			
10^{-3}	11	10	< 5	< 5	< 5	< 5			
10^{-4}	15		10	< 5	< 5	< 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}	12	< 10	< 10	< 10	< 10				
10^{-3}	20	< 10	< 10	< 10	< 10				
10^{-4}	30	18	< 10	< 10	< 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]	0,96	0,91	0,90
Stress level 2 [50 MPa]	0,98	0,94	0,94
Q_{Smax} [100 / 100 / 120 MPa]	0,99	0,95	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]
100	100	120

Sekant unloading modulus of the gasket E_G [MPa]			
Gasket stress [MPa]	ambient temperature	temperature 1 [150°C]	temperature 2 [300°C]
20	478	437	437
30	765	657	615
40	1207	896	843
50	1748	1269	1099
60	2254	1729	1393
80	3028	2438	2094
100	4494	3640	3098
120			4006
140			
160			
180			
200			
220			
225			

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

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