

Company Address	Klinger GmbH, Am Kanal 8-10, A-2352 Gumpoldskirchen, Austria
Gasket Type	Top-chem 2005
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]	$Q_A = 160$ [MPa]
$10^0$										
$10^{-1}$	< 5	< 5	< 5	< 5	< 5	< 5	< 5			
$10^{-2}$	8	< 5	< 5	< 5	< 5	< 5	< 5			
$10^{-3}$	13		< 5	< 5	< 5	< 5	< 5			
$10^{-4}$	20			< 5	< 5	< 5	< 5			
$10^{-5}$	37			24	6	< 5	< 5			
$10^{-6}$	56				48	45	29			
$10^{-7}$										
$10^{-8}$										

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]								
		$Q_A = 10$ [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]	$Q_A = 160$ [MPa]
$10^0$										
$10^{-1}$	< 10		< 10	< 10	< 10	< 10	< 10			
$10^{-2}$	12		< 10	< 10	< 10	< 10	< 10			
$10^{-3}$	21			< 10	< 10	< 10	< 10			
$10^{-4}$	36			18	11	< 10	< 10			
$10^{-5}$	74					61	32			
$10^{-6}$										
$10^{-7}$										
$10^{-8}$										

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]	temperature 3 [xxx °C]
Stress level 1 [10 MPa]		0.90	0.92	0.92	
Stress level 2 [20 MPa]		0.92	0.96	0.90	
$Q_{Smax}$ [120/40/20/20 MPa]		0.90	0.92	0.92	

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 2 [200 °C]	$Q_{Smax}$ [MPa] – temperature 2 [xxx °C]
120	40	20	20	

Sekant unloading modulus of the gasket $E_g$ [MPa]					
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [175 °C]	temperature 2 [200 °C]	temperature 2 [xxx °C]
20	2474	2239	2189	2096	
30	3119	3653			
40	3348	3300			
50	3873				
60	5257				
80	5187				
100	6744				
120					
140					
160					
180					
200					
220					
225					

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

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