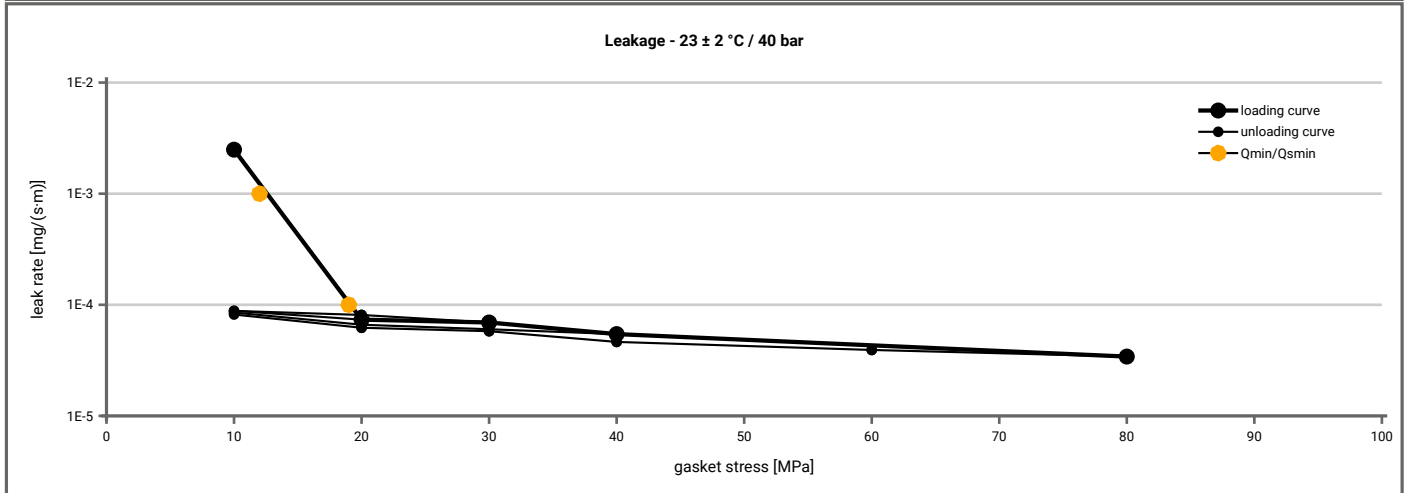


Manufacturer address	Flexitallic Ltd., Cleckheaton, BD19 4LN West Yorkshire, GB	According to DIN EN 13555 2014-7
Product name	Sigma 500 (PTFE with Glass Microsphere filler)	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for $p = 40$ bar ($T = 23 \pm 2$ °C)						
L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]				
		$Q_A = 10$ [MPa]	$Q_A = 20$ [MPa]	$Q_A = 30$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 80$ [MPa]
1E-0	10		10	10	10	10
1E-1	10		10	10	10	10
1E-2	10		10	10	10	10
1E-3	13		10	10	10	10
1E-4	19		10	10	10	10
1E-5						
1E-6						
1E-7						
1E-8						



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Relaxation ratio P_{QR} for stiffness $C = 500$ [kN/mm]										
Gasket stress	23 ± 2 °C		Temperature 1 [100 °C]		Temperature 2 [175 °C]		Temperature 3 [225 °C]		P_{QR}	Δe_{Gc} [µm]
	P_{QR}	Δe_{Gc} [µm]	P_{QR}	Δe_{Gc} [µm]	P_{QR}	Δe_{Gc} [µm]	P_{QR}	Δe_{Gc} [µm]		
Stress level 1 [30 MPa]	0.86	35	0.60	102	0.41	149	0.35	165		
Stress level 2 [50 MPa]	0.90	44	0.66	143	0.52	201				
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	0.92	57	0.76	164	0.52	201	0.35	165		
Q_{smax}	80 MPa		80 MPa		50 MPa		30 MPa			

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]											
Gasket stress [MPa]	23 ± 2 °C		Temperature 1 [100 °C]		Temperature 2 [175 °C]		Temperature 3 [225 °C]		E_G [MPa]	e_G [mm]	
	E_G [MPa]	e_G [mm]	E_G [MPa]	e_G [mm]	E_G [MPa]	e_G [mm]	E_G [MPa]	e_G [mm]			
0	0	2.093	0	2.085	0	2.060	0	2.085			
1	0	2.093	0	2.085	0	2.060	0	2.085			
20	958	1.916	512	1.619	469	1.290	489	1.177			
30	917	1.753	882	1.361	841	1.053	704	0.949			
40	1321	1.521	1339	1.162	1030	0.893					
50	1514	1.349	1550	1.010	1243	0.786					
60	2068	1.225	1655	0.900							
80	3216	1.029	2157	0.741							

