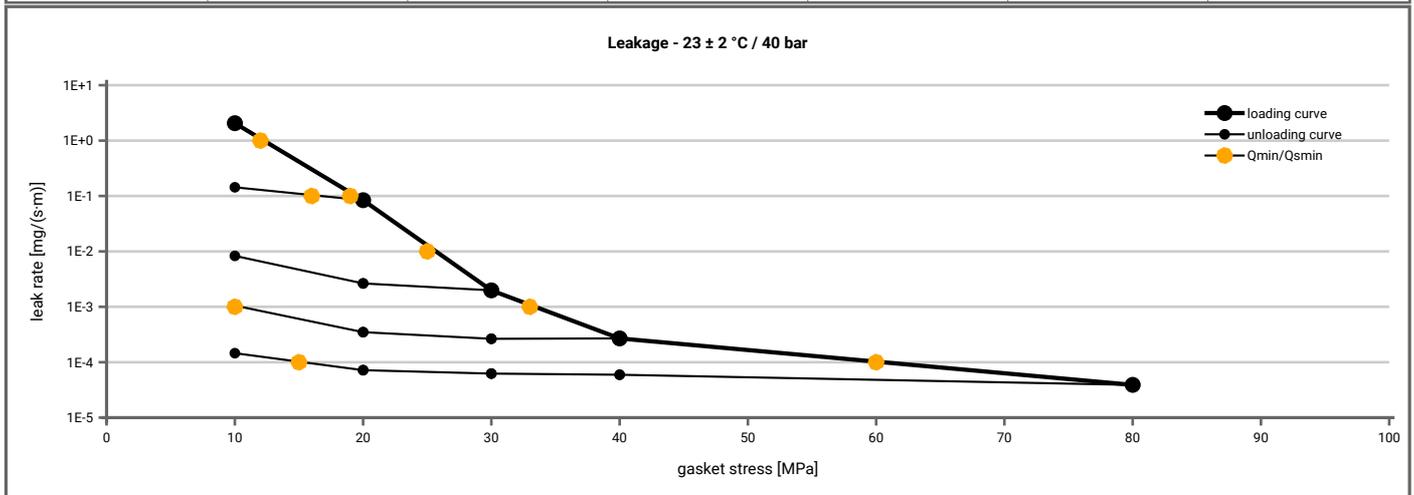


<b>Manufacturer address</b>	Flexitallic Ltd., Cleckheaton, BD19 4LN West Yorkshire, GB	According to <b>DIN EN 13555</b> <b>2014-7</b>
<b>Product name</b>	Sigma 511 (Biaxially Orientated PTFE with Silica filler)	
<b>Product dimensions</b>	92 x 49 x 3 mm (DIN EN 1514-1 1997-8)	

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+1	10		10	10	10	10
1E-0	12		10	10	10	10
1E-1	19		17	10	10	10
1E-2	26			10	10	10
1E-3	33				11	10
1E-4	61					15
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 [150 °C]		Temperature 2 [225 °C]		$P_{QR}$	$\Delta e_{Gc}$ [µm]	$P_{QR}$	$\Delta e_{Gc}$ [µm]
	$P_{QR}$	$\Delta e_{Gc}$ [µm]	$P_{QR}$	$\Delta e_{Gc}$ [µm]	$P_{QR}$	$\Delta e_{Gc}$ [µm]				
Stress level 1 [30 MPa]	0.94	15	0.59	103	0.41	149				
Stress level 2 [50 MPa]	0.89	46	0.50	210						
$P_{QR}$ and $\Delta e_{Gc}$ at maximum gasket stress to be applied $Q_{smax}$										
$P_{QR}$ at $Q_{smax}$	0.87	91	0.50	210	0.41	149				
$Q_{smax}$	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 [150 °C]		Temperature 2 [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	3.000	0	3.000	0	3.000				
1	0	2.935	0	2.890	0	2.940				
20	2857	2.830	1959	2.582	940	0.598				
30	2480	2.766	2160	2.318	1363	0.276				
40	3037	2.696	2118	2.103						
50	3397	2.625	2913	1.947						
60	3981	2.527								
80	4697	2.310								

