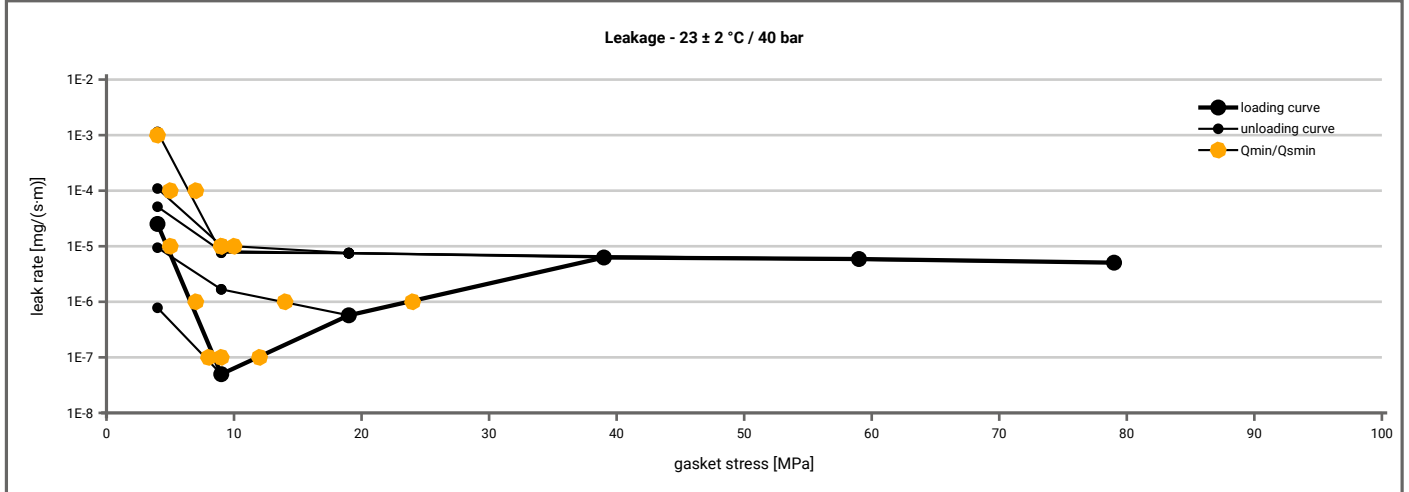


<b>Manufacturer address</b>	M. Zilken GmbH, Mathias-Brüggen-Str. 6, 50827 Köln, DE	According to <b>DIN EN 13555</b> <b>2005-2</b>
<b>Product name</b>	Zilken corrugated gasket 1.4571 with TFM1600-envelope - type: ZK104022	
<b>Product dimensions</b>	92 x 49 x 3.5 mm (DIN EN 1514-3 1997-8)	

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]					
		$Q_A = 4.8$ [MPa]	$Q_A = 9.7$ [MPa]	$Q_A = 20$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [MPa]
1E-0	5		5	5	5	5	5
1E-1	5		5	5	5	5	5
1E-2	5		5	5	5	5	5
1E-3	5		5	5	5	5	5
1E-4	5		5	5	7	5	5
1E-5	6		5	5	10	9	11
1E-6	7		5	15			
1E-7	9		8				
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 [230 °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]	0.92	21	0.55	113	0.38	157				
Stress level 2 [50 MPa]	0.96	19	0.46	229						
$P_{QR}$ and $\Delta e_{Gc}$ at maximum gasket stress to be applied $Q_{smax}$										
$P_{QR}$ at $Q_{smax}$	0.87	91	0.42	295	0.35	220				
$Q_{smax}$	80 MPa		60 MPa		40 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 [230 °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	3.211	0	3.474	0	3.466				
1	0	3.211	0	3.474	0	3.466				
20	342	2.084	621	1.806	745	1.522				
30	836	1.982	1362	1.593	1173	1.359				
40	1530	1.930	1737	1.450	1458	1.281				
50	1841	1.885	1758	1.358						
60	2189	1.819	2457	1.268						
80	3831	1.650								

