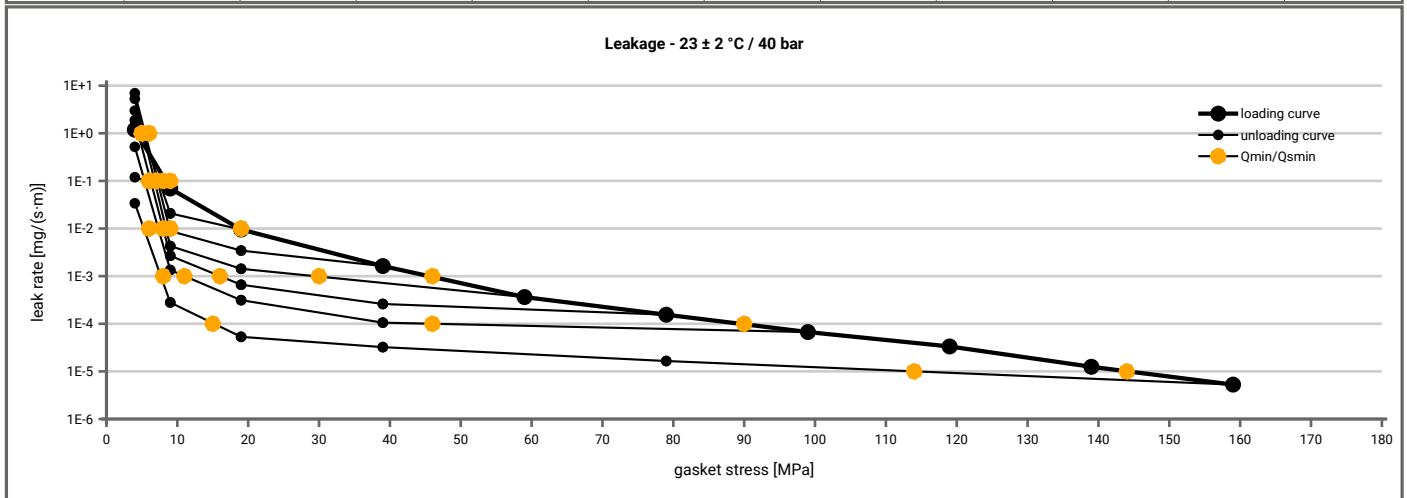


Manufacturer address	M. Zilken GmbH, Mathias-Brüggen-Str. 6, 50827 Köln, DE	According to DIN EN 13555 2005-2
Product name	Zilken corrugated gasket 1.4571 with graphite layers and inner eyelet 1.4571 - type: ZK105027	
Product dimensions	92 x 49 x 3 mm (DIN EN 1514-4 1997-8)	

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]									
		$Q_A = 4.7$ [MPa]	$Q_A = 9.7$ [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]
1E+1	5		5	5	5	5	5	5			5
1E-0	5		5	6	6	6	5	5			5
1E-1	9		6	8	8	8	7	6			5
1E-2	19			19	10	9	9	8			6
1E-3	46					30	17	12			8
1E-4	90							47			16
1E-5	145										115
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 [200 °C]		Temperature 2 [400 °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]	0.96	11	0.84	42	0.80	52				
Stress level 2 [50 MPa]	0.98	8	0.84	67	0.84	67				
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	0.99	19	0.98	39	0.97	45				
Q_{smax}	230 MPa		230 MPa		180 MPa					

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	23 ± 2 °C		Temperature 1 [200 °C]		Temperature 2 [400 °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	2.488	0	2.620	0	2.445				
1	0	2.488	0	2.620	0	2.445				
20	604	1.567	824	1.520	698	1.499				
30	1056	1.463	1061	1.432	1191	1.431				
40	1283	1.397	1593	1.338	1235	1.344				
50	1710	1.336	2232	1.307	1865	1.303				
60	2171	1.306	2741	1.282	2708	1.278				
80	2943	1.267	3085	1.247	2625	1.233				
100	3256	1.232	4856	1.225	3580	1.206				
120	4009	1.206	6013	1.209	4177	1.185				
140	5301	1.191	6172	1.195	4638	1.168				
160	6576	1.179	7102	1.183	7078	1.157				
180	8178	1.168	7547	1.173	6037	1.143				
200	9083	1.158	8246	1.165						
220	10233	1.151	11370	1.153						
230	9548	1.144	9766	1.148						

