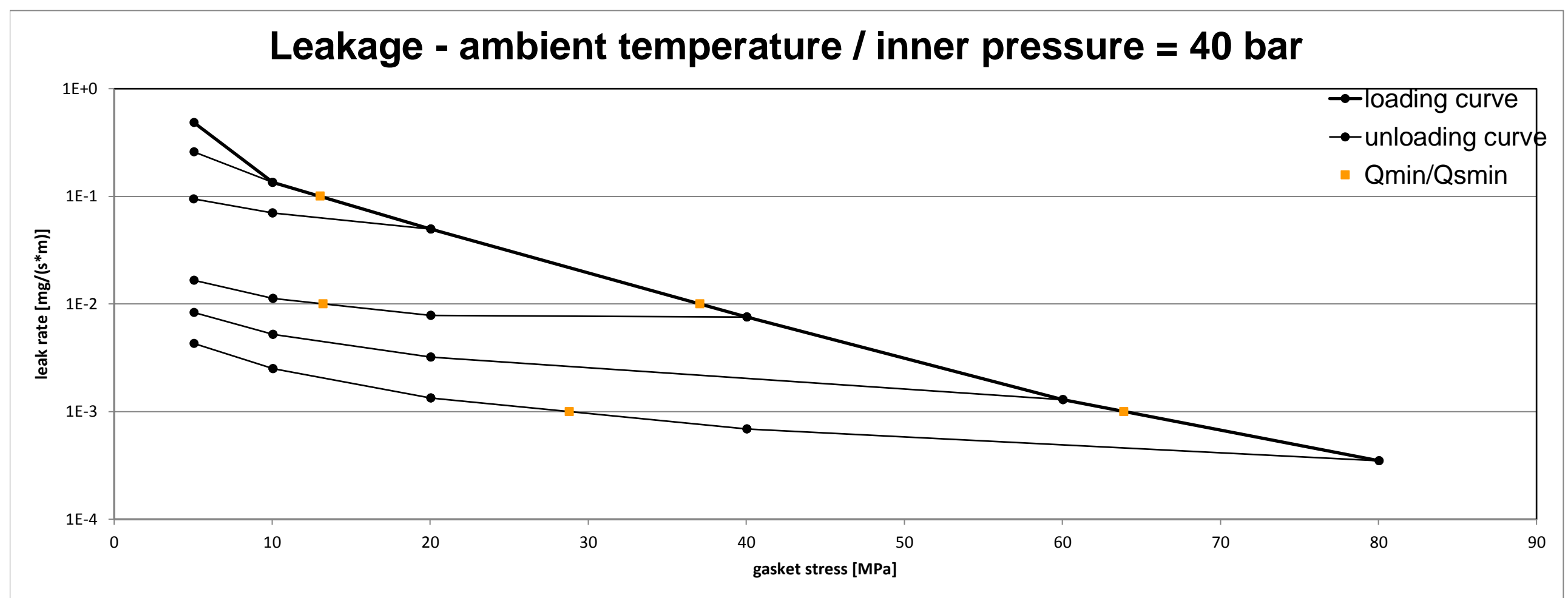


Company Address	Frenzelit GmbH; Frankenhammer; 95460 Bad Berneck	According to DIN EN 13555 2014-07
Gasket Type	novaphit® 400	
Sealing element dimensions [mm]	92x49x2.0	

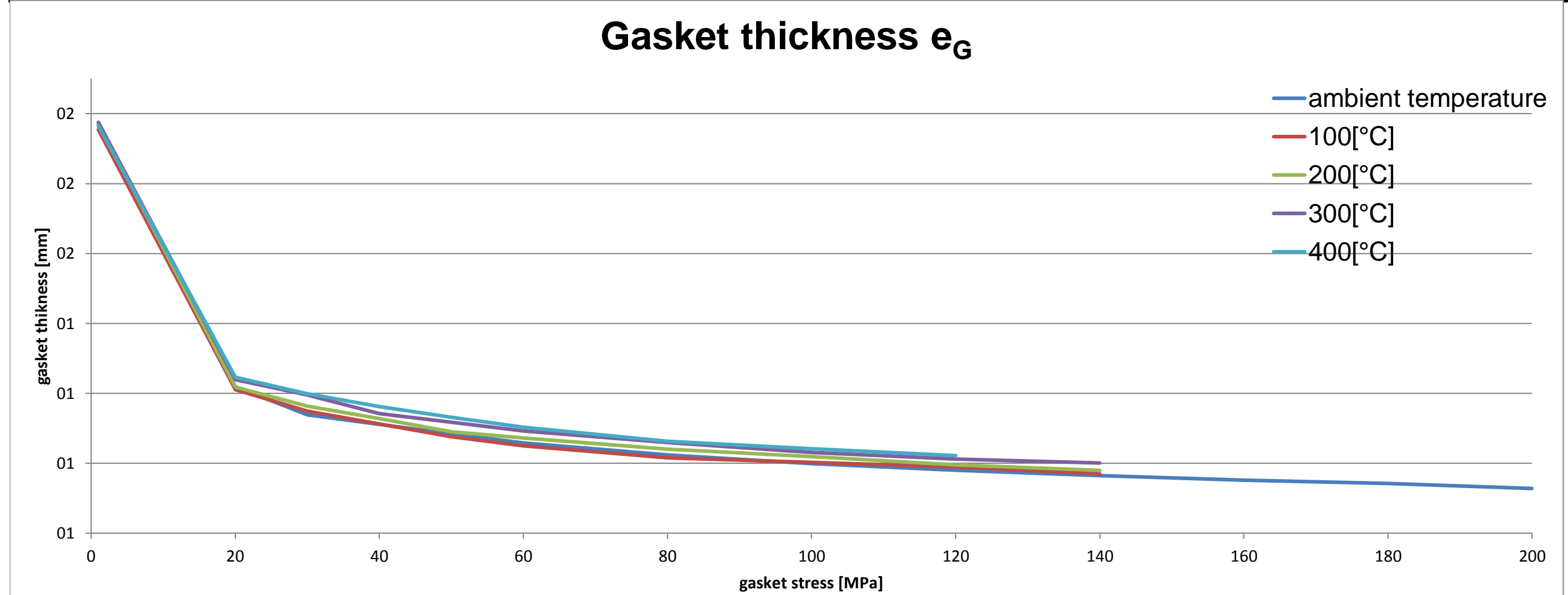
		Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for p = 40 bar									
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]									
		$Q_A=10$ MPa	$Q_A=20$ MPa	$Q_A=40$ MPa	$Q_A=60$ MPa	$Q_A=80$ MPa					
10^{-0}	5	5	5	5	5	5					
10^{-1}	13		5	5	5	5					
10^{-2}	37			13	5	5					
10^{-3}	64					29					
10^{-4}											
10^{-5}											
10^{-6}											
10^{-7}											
10^{-8}											



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Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm										
Gasket stress	temperature 1 [25 °C]		temperature 2 [100 °C]		temperature 3 [200 °C]		temperature 4 [300 °C]		temperature 5 [400 °C]	
	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]	P_{QR}	Δe_{Gc} [mm]
Stress level 1 [30 MPa]	0.99	0.003	0.96	0.010	0.91	0.023	0.90	0.025	0.90	0.025
P_{QR} and Δe_{Gc} at maximal applicable gasket stress Q_{Smax}										
P_{QR} at Q_{Smax}	0.99	0.017	0.98	0.023	0.96	0.047	0.95	0.059	0.93	0.070
Q_{Smax}	200 MPa		140 MPa		140 MPa		140 MPa		120 MPa	

Sekant unloading modulus of the gasket E_G [MPa] and gasket thickness e_G [mm]										
Gasket stress [MPa]	ambient temperature		temperature 1 [100 °C]		temperature 2 [200 °C]		temperature 3 [300 °C]		temperature 4 [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		1.980		1.980		1.993		1.995		1.991
1		1.966		1.954		1.974		1.975		1.965
20	540	1.219	485	1.210	414	1.218	437	1.239	487	1.247
30	484	1.138	692	1.149	899	1.163	781	1.195	650	1.199
40	1322	1.112	1254	1.113	1167	1.128	1076	1.143	1176	1.162
50	1575	1.084	1162	1.076	1299	1.090	1486	1.117	1187	1.131
60	1594	1.058	1289	1.050	1653	1.072	1435	1.092	1334	1.103
80	2340	1.024	2137	1.015	2299	1.041	2211	1.059	1861	1.063
100	2799	0.999	3168	1.003	3088	1.019	2536	1.030	3457	1.042
120	4099	0.980	3955	0.989	3248	0.996	4167	1.012	3461	1.022
140	4810	0.965	5480	0.970	3539	0.980	5724	1.001		
160	5154	0.952								
180	6202	0.942								
200	6783	0.928								
220										
240										
260										
280										
300										
320										
340										
360										
380										
400										
420										
440										
460										
480										
500										
940										



Note: the content of darkened cells was not determined respectively is unnecessary | Rev - No: 1 | Creation date of this sheet: 2018-02-23