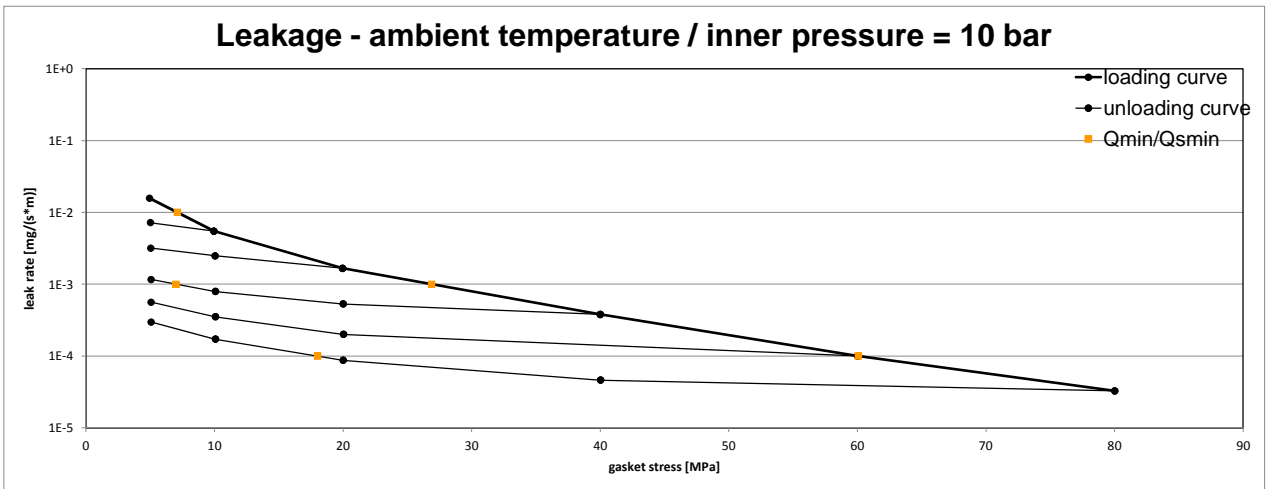
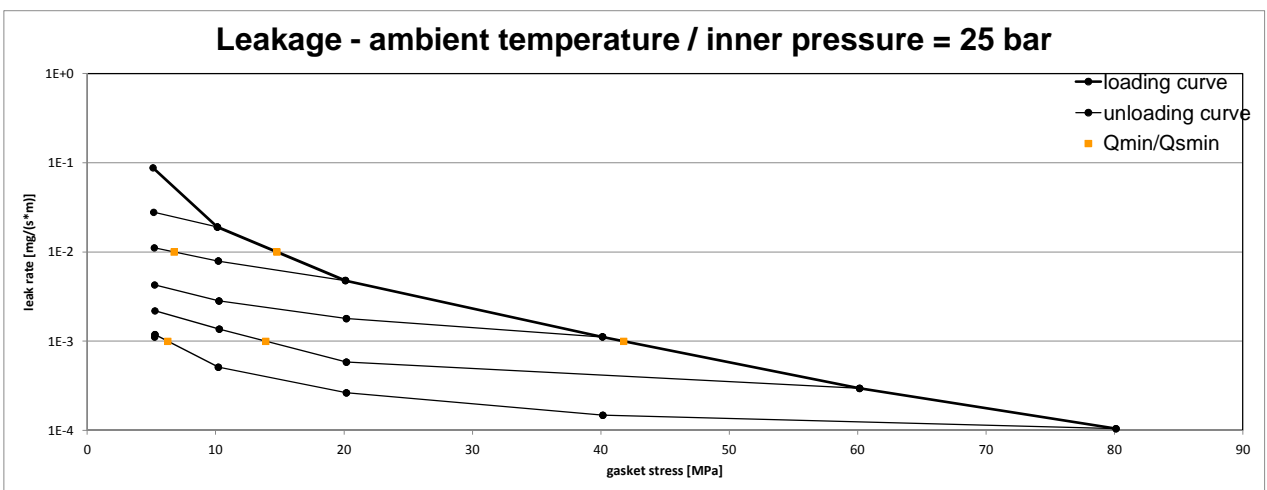


Company Address	Frenzelit-Werke, Frankenhammer 7, 95460 Bad Berneck, Germany
Gasket Type	novaphit MST
Sealing element dimensions [mm]	92 x 49 x 2.0

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	5	5	5	5	5	5							
10 ⁻²	7	5	5	5	5	5							
10 ⁻³	27			7	5	5							
10 ⁻⁴	60				5	18							
10 ⁻⁵													
10 ⁻⁶													
10 ⁻⁷													
10 ⁻⁸													



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	5	5	5	5	5	5							
10 ⁻²	15		7	5	5	5							
10 ⁻³	42				14	6							
10 ⁻⁴													
10 ⁻⁵													
10 ⁻⁶													
10 ⁻⁷													
10 ⁻⁸													



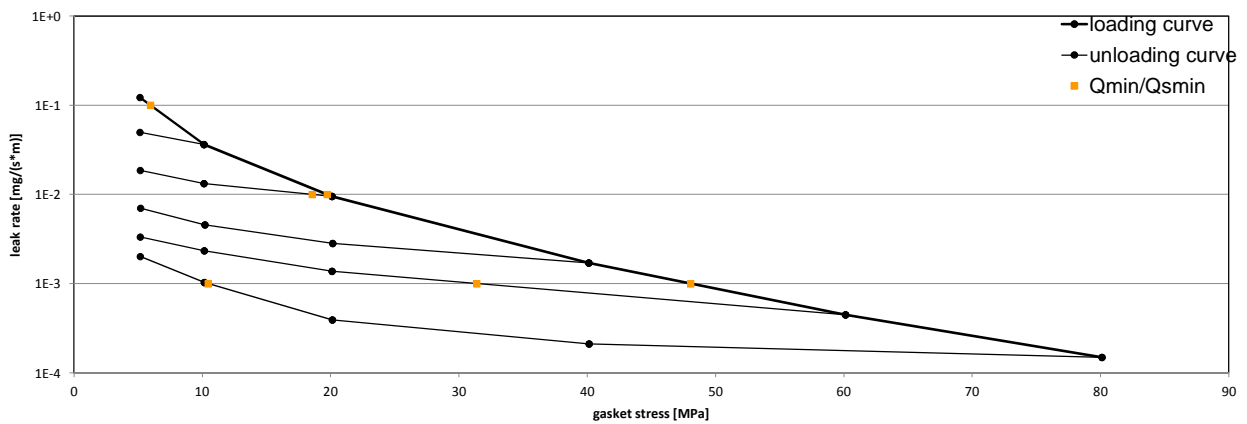
Note: the content of darkened cells was not determined respectively is unnecessary Rev - No: 1 Creation date of this sheet: 09.09.2011



Company Address	Frenzelit-Werke, Frankenhammer 7, 95460 Bad Berneck, Germany
Gasket Type	novaphit MST
Sealing element dimensions [mm]	92 x 49 x 2.0

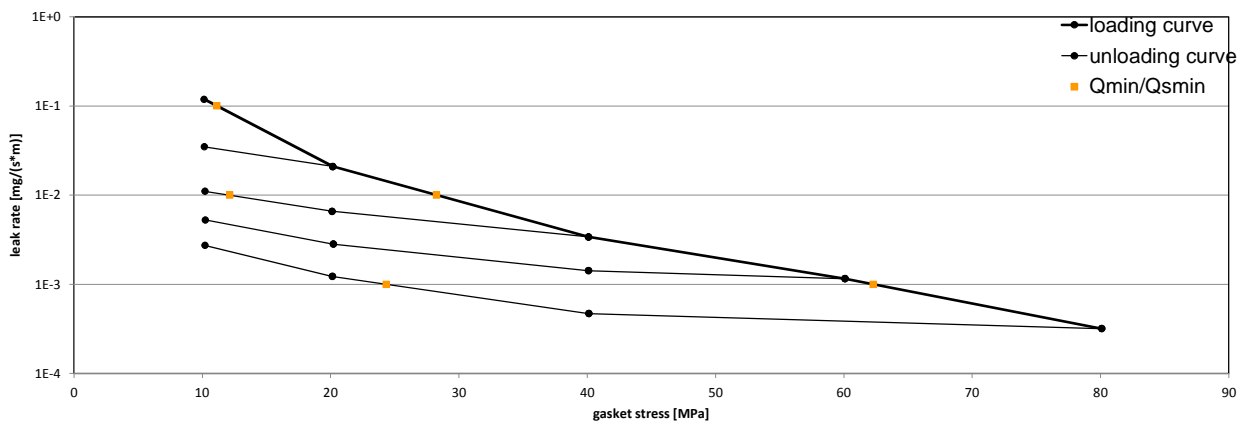
L [mg/(s*m)]	Q _{min/L} [MPa]	Minimum stress to seal Q _{min/L} (at assembly), Q _{Smin/L} (after off-loading) for p = 40 bar					Q _{Smin/L} [MPa]				
		Q _A = 10 MPa	Q _A = 20 MPa	Q _A = 40 MPa	Q _A = 60 MPa	Q _A = 80 MPa					
10 ⁰	5	5	5	5	5	5					
10 ⁻¹	6	5	5	5	5	5					
10 ⁻²	20		19	5	5	5					
10 ⁻³	48				31	10					
10 ⁻⁴											
10 ⁻⁵											
10 ⁻⁶											
10 ⁻⁷											
10 ⁻⁸											

Leakage - ambient temperature / inner pressure = 40 bar



L [mg/(s*m)]	Q _{min/L} [MPa]	Minimum stress to seal Q _{min/L} (at assembly), Q _{Smin/L} (after off-loading) for p = 63 bar				Q _{Smin/L} [MPa]				
		Q _A = 20 MPa	Q _A = 40 MPa	Q _A = 60 MPa	Q _A = 80 MPa					
10 ⁰	10	10	10	10	10					
10 ⁻¹	11	10	10	10	10					
10 ⁻²	28		12	10	10					
10 ⁻³	62				24					
10 ⁻⁴										
10 ⁻⁵										
10 ⁻⁶										
10 ⁻⁷										
10 ⁻⁸										

Leakage - ambient temperature / inner pressure = 63 bar



Note: the content of darkened cells was not determined respectively is unnecessary

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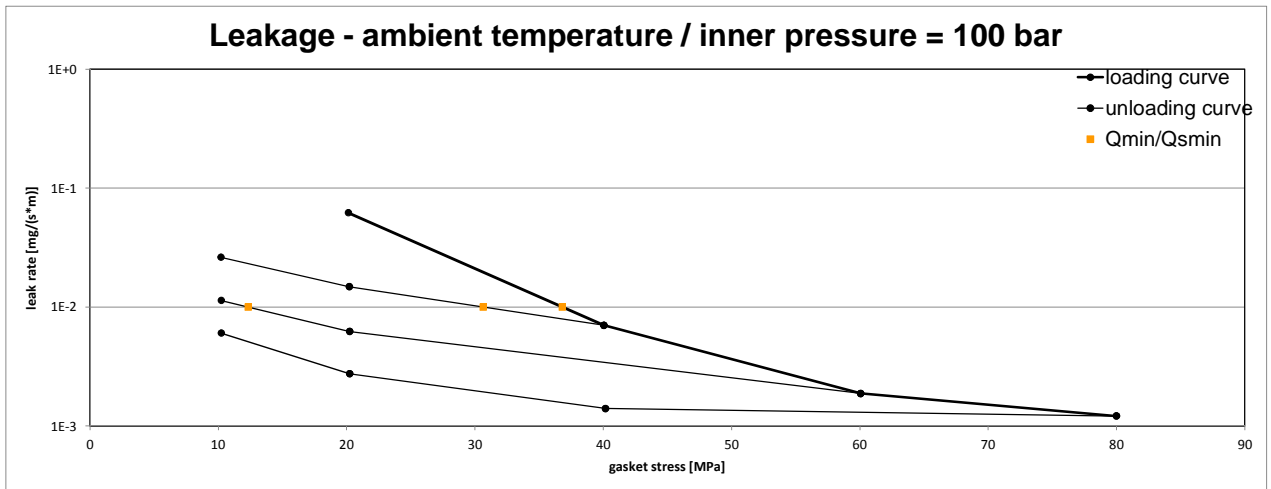
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Center of Sealing Technologies, Bürgerkamp 3, 48565 Steinfurt, Germany

Company Address	Frenzelit-Werke, Frankenhammer 7, 95460 Bad Berneck, Germany
Gasket Type	novaphit MST
Sealing element dimensions [mm]	92 x 49 x 2.0

L [mg/(s*m)]	Q _{min/L} [MPa]	Minimum stress to seal Q _{min/L} (at assembly), Q _{Smin/L} (after off-loading) for p = 100 bar								
		Q _A = 40 MPa	Q _A = 60 MPa	Q _A = 80 MPa						
10 ⁰	20	10	10	10						
10 ⁻¹	20	10	10	10						
10 ⁻²	37	31	12	10						
10 ⁻³										
10 ⁻⁴										
10 ⁻⁵										
10 ⁻⁶										
10 ⁻⁷										
10 ⁻⁸										



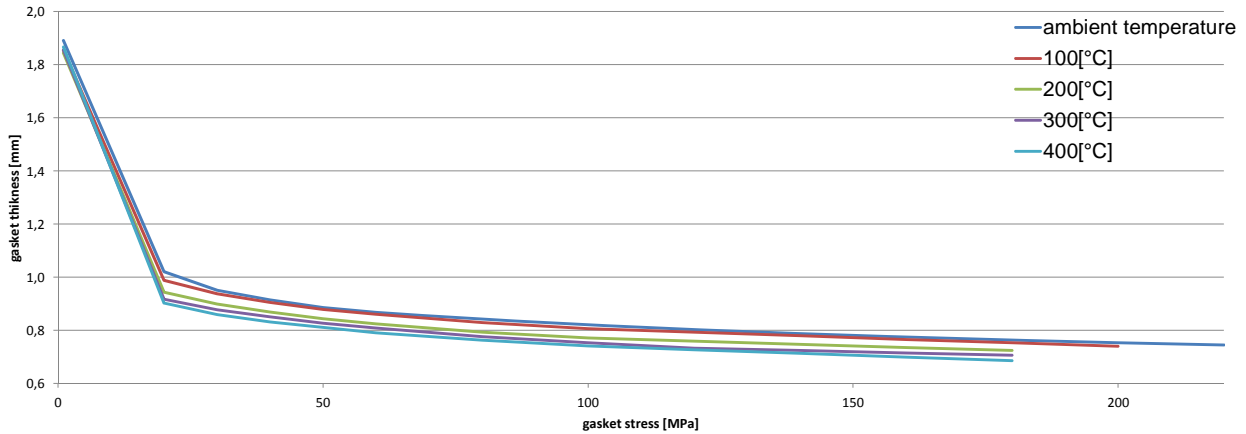
Company Address	Frenzelit-Werke, Frankenhammer 7, 95460 Bad Berneck, Germany
Gasket Type	novaphit MST
Sealing element dimensions [mm]	92 x 49 x 2.0

Relaxation ratio P_{QR} for stiffness $C = 500$ kN/mm					
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [200 °C]	temperature 3 [300 °C]	temperature 4 [400 °C]
Stress level 1 [30 MPa]	0,98	0,93	0,89	0,91	0,92
Stress level 2 [50 MPa]	0,99	0,96	0,93	0,95	0,95
PQR at Q_{Smax}	1,00 at 220 MPa	0,98 at 200 MPa	0,96 at 180 MPa	0,95 at 180 MPa	0,96 at 180 MPa

Maximal applicable gasket stress Q_{Smax}				
Q_{Smax} [MPa] ambient temperature	Q_{Smax} [MPa] – temperature 1 [100 °C]	Q_{Smax} [MPa] – temperature 2 [200 °C]	Q_{Smax} [MPa] – temperature 3 [300 °C]	Q_{Smax} [MPa] – temperature 4 [400 °C]
220	200	180	180	180

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		1,89		1,85		1,84		1,85		1,87
20	465	1,02	440	0,99	513	0,94	470	0,92	479	0,90
30	741	0,95	1132	0,94	802	0,90	800	0,88	602	0,86
40	1110	0,91	1155	0,91	1118	0,87	1228	0,85	1271	0,83
50	1270	0,89	1504	0,88	1341	0,84	1420	0,83	1390	0,81
60	1988	0,87	1921	0,86	1696	0,82	1748	0,81	1763	0,79
80	2792	0,84	2683	0,83	2750	0,79	2124	0,78	2245	0,76
100	2980	0,82	2666	0,81	3586	0,77	2581	0,75	2636	0,74
120	3780	0,80	4561	0,79	4514	0,76	2938	0,73	3795	0,73
140	4756	0,79	5405	0,78	5600	0,75	4036	0,72	5165	0,71
160	4881	0,77	5105	0,76	5894	0,73	5113	0,71	5000	0,70
180	5150	0,76	5491	0,75	5825	0,72	5861	0,71	4845	0,69
200	5459	0,75	5679	0,74						
220	5750	0,74								

Gasket thickness e_G



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