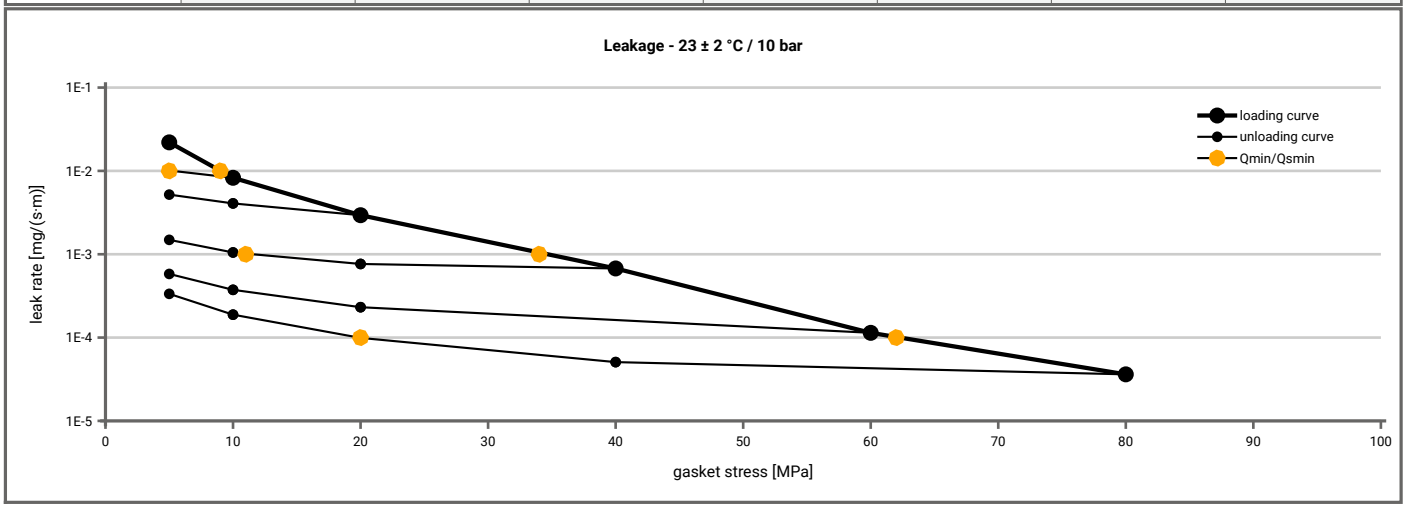
Manufacturer address	Frenzelit GmbH, Frankenhammer, 95460 Bad Berneck, DE	According to **DIN EN 13555 2005-2**
Product name	novaphit SSTC TA-L IB mit/ohne XP-Technologie mit Innenbördel	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

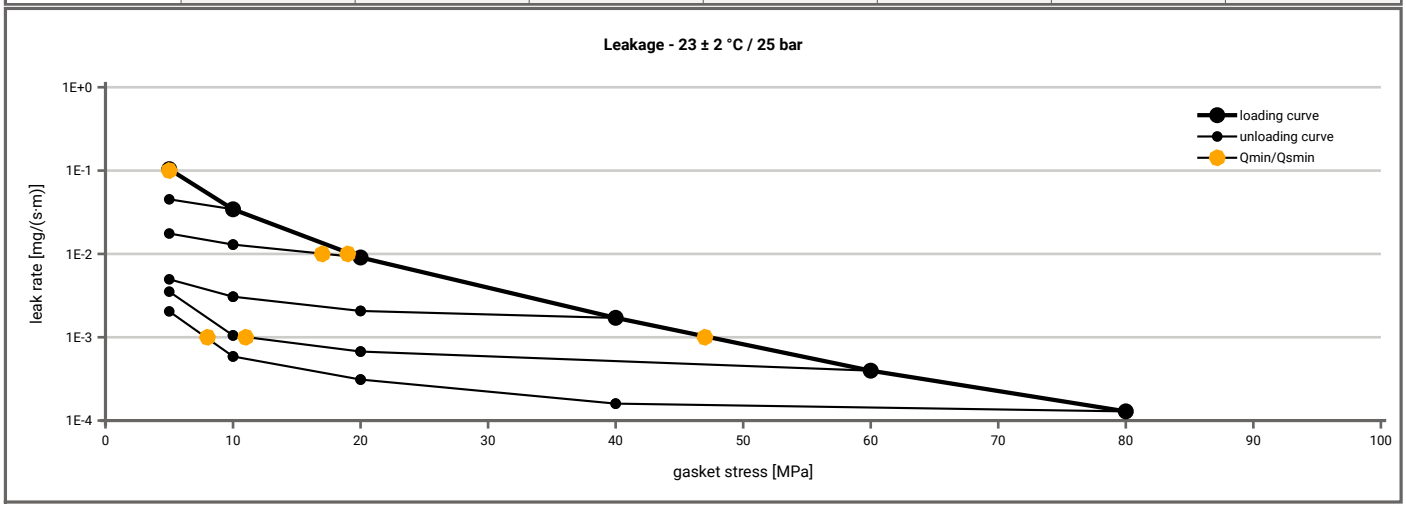
Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 10 bar (T = 23 ± 2 °C)

L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]					
		Q_A = 5 [MPa]	Q_A = 10 [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	9		5	5	5	5	5
1E-3	35				12	5	5
1E-4	62						20
1E-5							
1E-6							
1E-7							
1E-8							



Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 25 bar (T = 23 ± 2 °C)

L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]					
		Q_A = 5.3 [MPa]	Q_A = 10 [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	19			17	5	5	5
1E-3	48					11	8
1E-4							
1E-5							
1E-6							
1E-7							
1E-8							

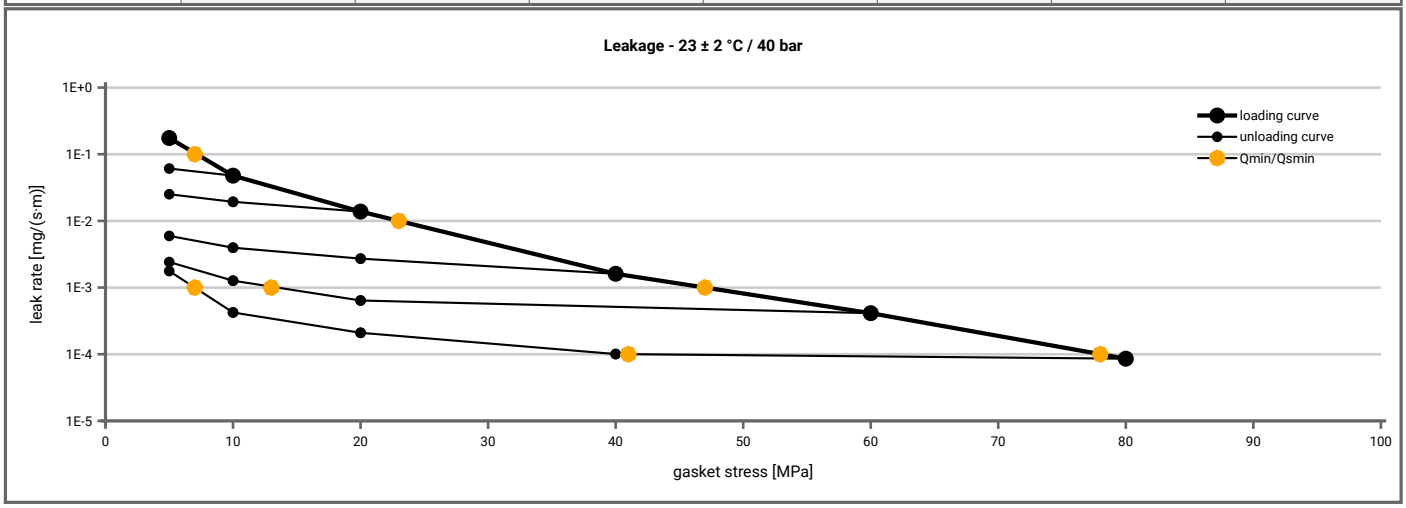


Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **1**	Creation date of this sheet: **2011-09-09**

Manufacturer address	Frenzelit GmbH, Frankenhammer, 95460 Bad Berneck, DE	According to **DIN EN 13555 2005-2**
Product name	novaphit SSTC TA-L IB mit/ohne XP-Technologie mit Innenbördel	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

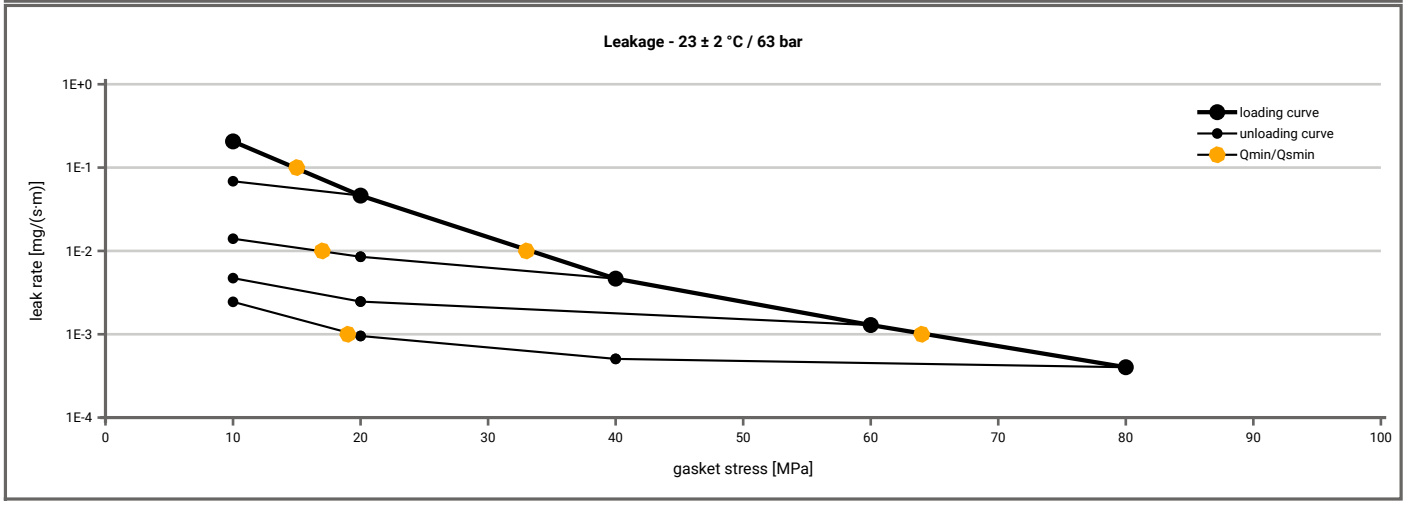
Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 40 bar (T = 23 ± 2 °C)

L [mg/(s·m)]	$Q_{min(L)}$ [MPa]	$Q_{smin(L)}$ [MPa]					
		Q_A = 5 [MPa]	Q_A = 10 [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	7		5	5	5	5	5
1E-2	23				5	5	5
1E-3	47					14	7
1E-4	78						42
1E-5							
1E-6							
1E-7							
1E-8							



Minimum stress to seal $Q_{min(L)}$ (at assembly), $Q_{smin(L)}$ (after off-loading) for p = 63 bar (T = 23 ± 2 °C)

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]
1E-0	10		10	10	10	10
1E-1	15		10	10	10	10
1E-2	33			17	10	10
1E-3	64					20
1E-4						
1E-5						
1E-6						
1E-7						
1E-8						



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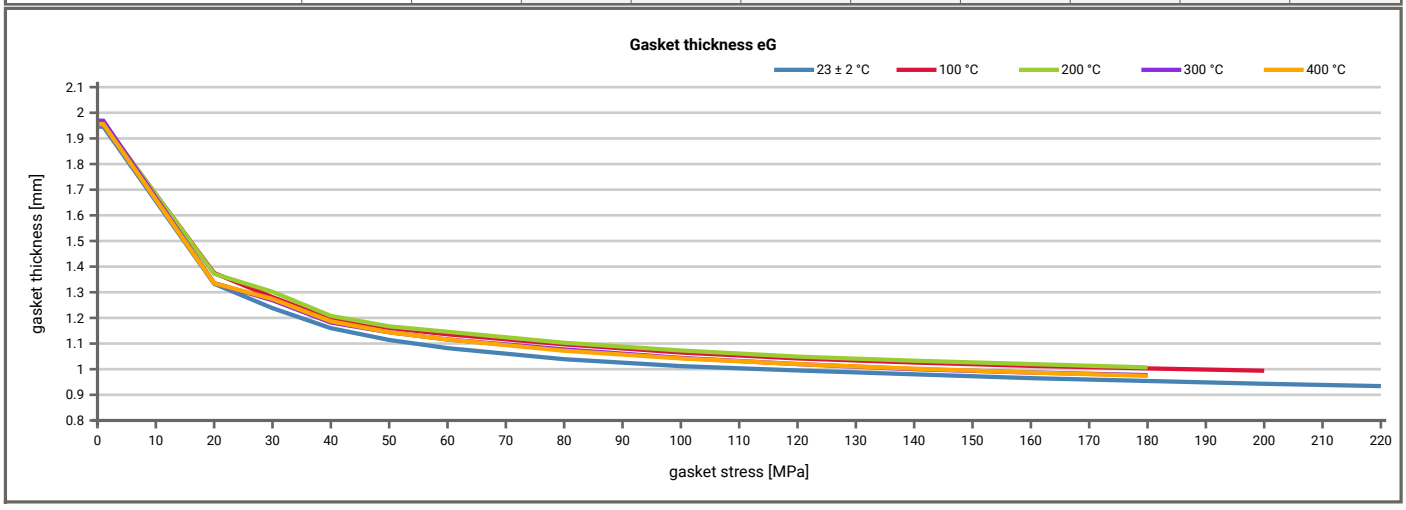
Manufacturer address	Frenzelit GmbH, Frankenhammer, 95460 Bad Berneck, DE	According to **DIN EN 13555 2005-2**
Product name	novaphit SSTC TA-L IB mit/ohne XP-Technologie mit Innenbördel	
Product dimensions	92 x 49 x 2 mm (DIN EN 1514-1 1997-8)	

Relaxation ratio P_{QR} for stiffness C = 500 [kN/mm]										
Gasket stress	**23 ± 2 °C**		**Temperature 1 [100 °C]**		**Temperature 2 [200 °C]**		**Temperature 3 [300 °C]**		**Temperature 4 [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]	0.99	4	0.94	16	0.91	23	0.92	21	0.93	19
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	1.00	0	0.99	17	0.99	15	0.98	30	0.98	38
Q_{smax}	220 MPa		200 MPa		180 MPa		180 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 [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	0	1.946	0	1.958	0	1.961	0	1.969	0	1.956
1	0	1.946	0	1.958	0	1.961	0	1.969	0	1.956
20	553	1.333	488	1.375	582	1.372	574	1.336	527	1.335
30	816	1.238	861	1.281	1024	1.302	932	1.269	958	1.274
40	1219	1.160	1203	1.196	1343	1.208	1157	1.182	1091	1.187
50	1893	1.114	2122	1.161	1796	1.167	2149	1.144	1579	1.144
60	1877	1.082	2258	1.136	3224	1.146	2241	1.116	2501	1.116
80	2656	1.039	2637	1.097	2660	1.103	2998	1.077	2585	1.072
100	3422	1.012	2831	1.065	3177	1.073	2978	1.044	3055	1.042
120	4289	0.995	3376	1.042	3404	1.049	3477	1.020	3571	1.020
140	5674	0.980	4690	1.026	4216	1.033	5039	1.000	4164	1.002
160	5493	0.965	5416	1.013	5048	1.020	5324	0.987	4815	0.987
180	5817	0.954	6317	1.003	5552	1.007	5228	0.977	4954	0.974
200	6085	0.943	7148	0.994						
220	6907	0.934								



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