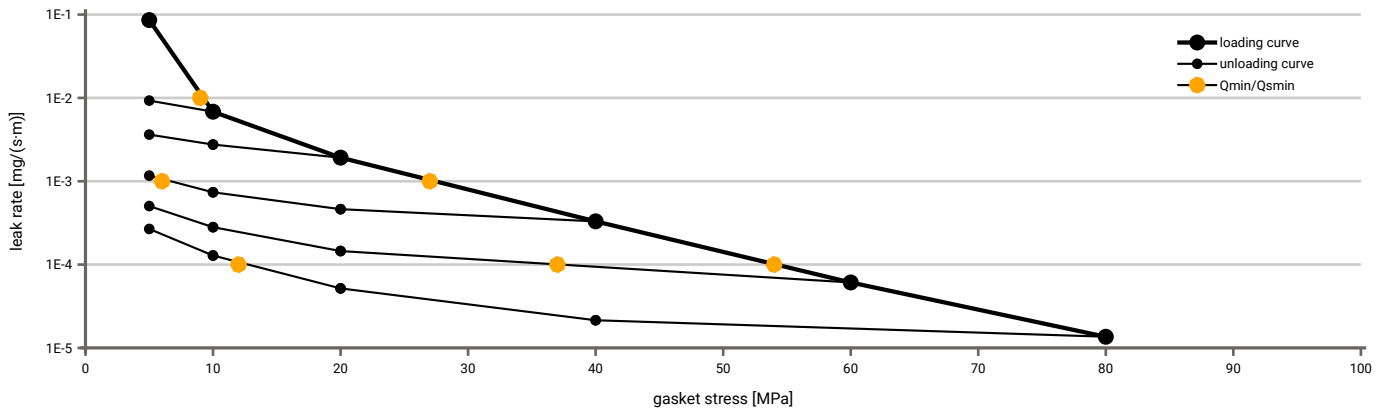
Manufacturer address	Frenzelit GmbH, Frankenhammer, 95460 Bad Berneck, DE	According to **DIN EN 13555 2005-2**
Product name	novaphit SSTC TA-L / novaphit SSTC TA-L with XP-Technology	
Product dimensions	92 x 49 x 1.6 mm (DIN EN 1514-1 1997-8)	

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	27				7	5	5
1E-4	54					37	13
1E-5							
1E-6							
1E-7							
1E-8							

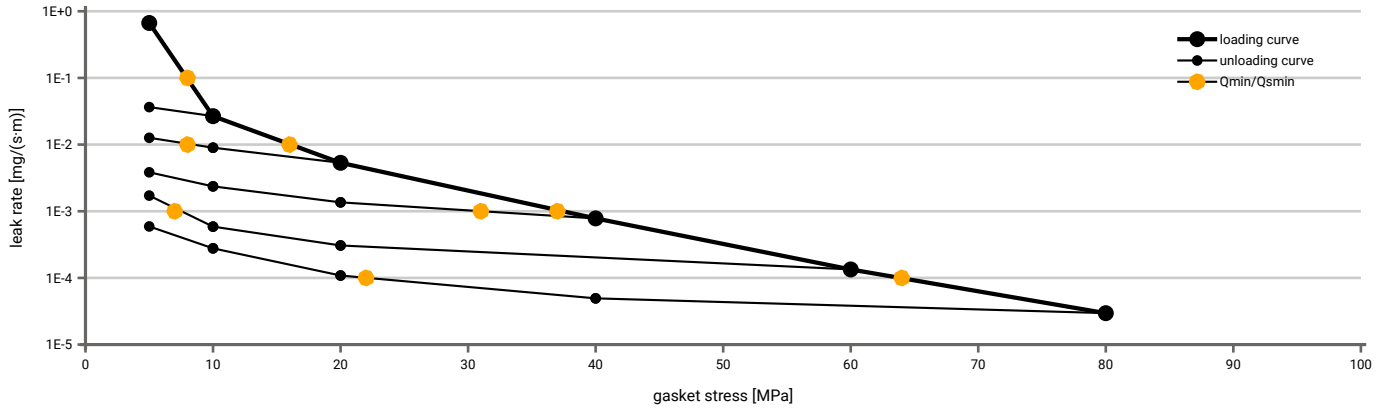
Leakage - 23 ± 2 °C / 10 bar



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 [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	8		5	5	5	5	5
1E-2	16			9	5	5	5
1E-3	38				31	8	5
1E-4	64						22
1E-5							
1E-6							
1E-7							
1E-8							

Leakage - 23 ± 2 °C / 25 bar



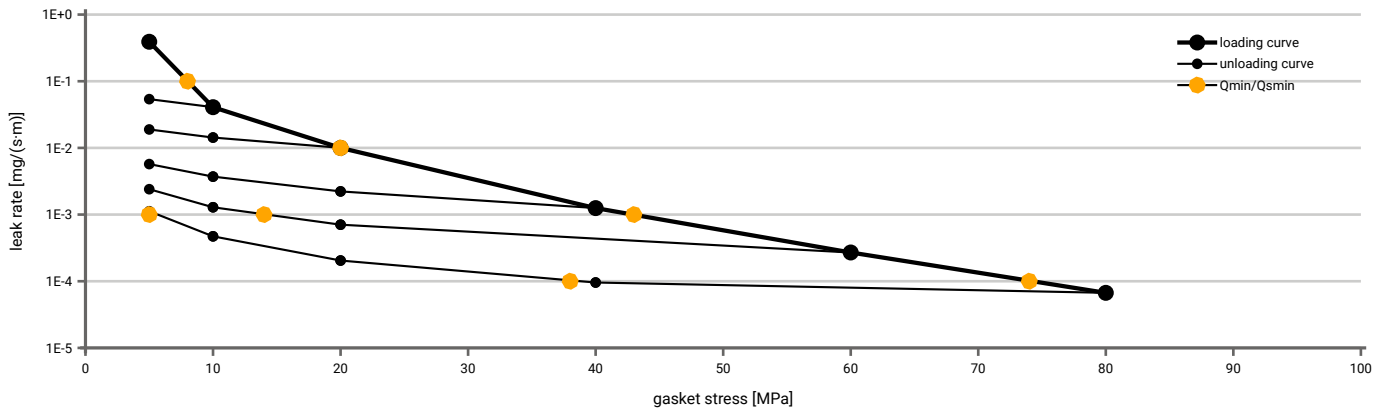
Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **1**	Creation date of this sheet: **2013-07-02**

Manufacturer address	Frenzelit GmbH, Frankenhammer, 95460 Bad Berneck, DE	According to **DIN EN 13555 2005-2**
Product name	novaphit SSTC TA-L / novaphit SSTC TA-L with XP-Technology	
Product dimensions	92 x 49 x 1.6 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	8		5	5	5	5	5
1E-2	20				5	5	5
1E-3	43					14	6
1E-4	74						39
1E-5							
1E-6							
1E-7							
1E-8							

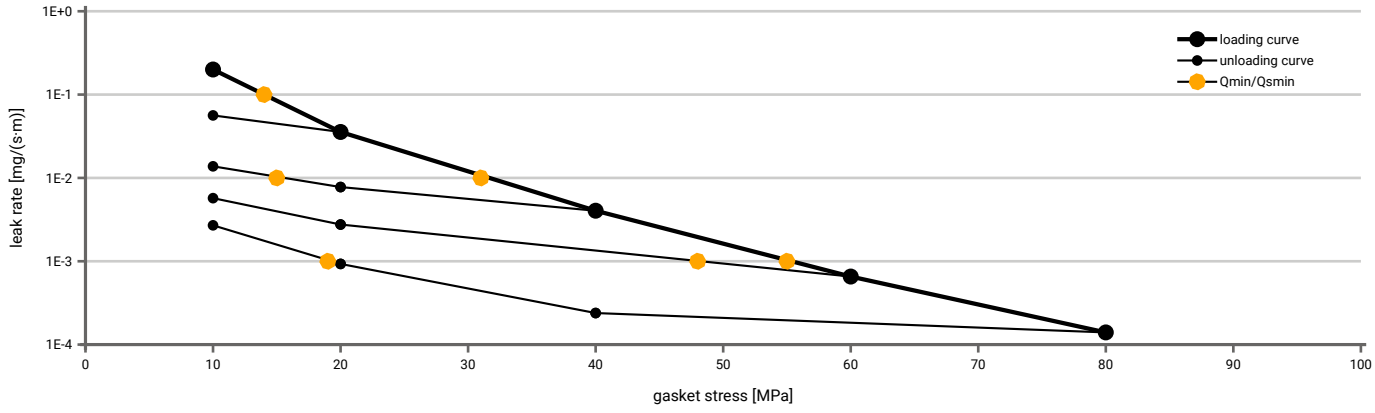
Leakage - 23 ± 2 °C / 40 bar



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	14		10	10	10	10
1E-2	32			16	10	10
1E-3	55				48	19
1E-4						
1E-5						
1E-6						
1E-7						
1E-8						

Leakage - 23 ± 2 °C / 63 bar



Note: the content of darkened cells was not determined respectively is unnecessary	Rev.-No.: **1**	Creation date of this sheet: **2013-07-02**

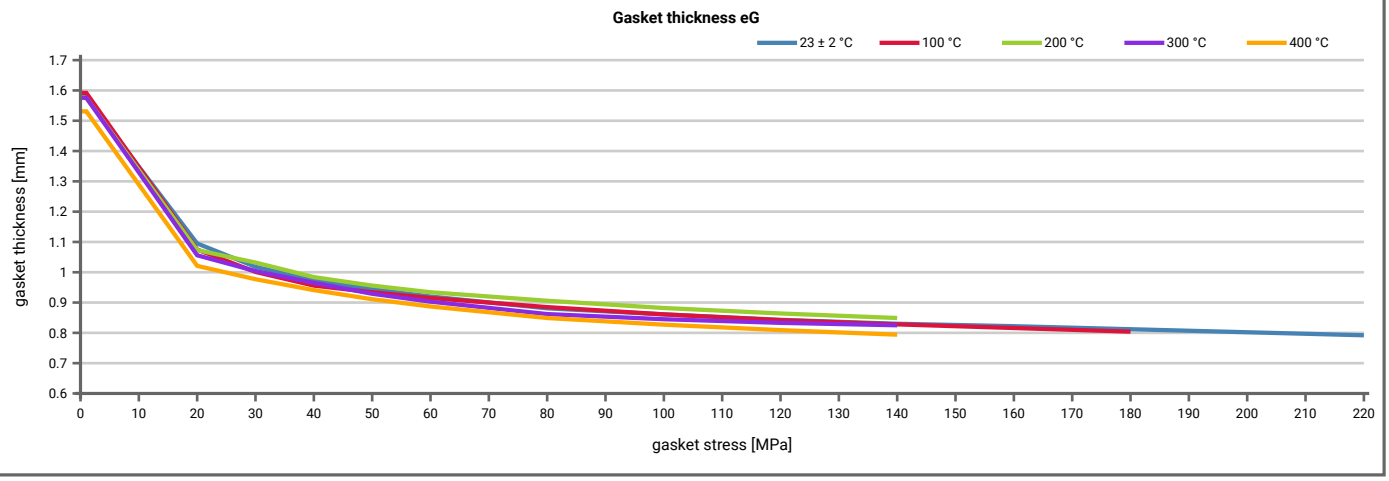
Manufacturer address	Frenzelit GmbH, Frankenhammer, 95460 Bad Berneck, DE	According to **DIN EN 13555 2005-2**
Product name	novaphit SSTC TA-L / novaphit SSTC TA-L with XP-Technology	
Product dimensions	92 x 49 x 1.6 mm (DIN EN 1514-1 1997-8)	

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	3	0.93	18	0.93	18	0.93	19	0.93	18
P_{QR} and Δe_{Gc} at maximum gasket stress to be applied Q_{smax}										
P_{QR} at Q_{smax}	1.00	0	0.98	30	0.96	53	0.95	65	0.91	112
Q_{smax}	220 MPa		180 MPa		140 MPa		140 MPa		140 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	1.577	0	1.592	0	1.575	0	1.576	0	1.531
1	0	1.577	0	1.592	0	1.575	0	1.576	0	1.531
20	332	1.095	449	1.075	532	1.073	603	1.056	451	1.021
30	605	1.018	603	1.001	720	1.032	659	1.004	871	0.977
40	1039	0.975	848	0.956	827	0.984	1150	0.965	1134	0.941
50	1243	0.944	1820	0.934	1314	0.956	1023	0.929	1212	0.911
60	1396	0.920	1869	0.915	1561	0.934	1339	0.903	1513	0.887
80	1903	0.881	2642	0.885	3047	0.906	1828	0.862	2046	0.849
100	5005	0.861	2994	0.861	2919	0.882	4283	0.845	3188	0.827
120	4071	0.843	3378	0.842	3335	0.864	6356	0.833	3554	0.809
140	5353	0.830	4389	0.828	4153	0.849	7912	0.825	4274	0.794
160	9773	0.822	4923	0.816						
180	9784	0.812	4899	0.804						
200	8154	0.802								
220	6995	0.792								



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