

Company Address	Frenzelit-Werke, Frankenhammer 7, 95460 Bad Berneck
Gasket Type	novaphit® SSTC <sup>TA-L</sup>
Thickness $e_{G0}$ [mm]	1.6

Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading)										
L [mg/(s*m)]	$Q_{min/L}$ p = 10 bar [MPa]	$Q_{Smin/L}$ [MPa] for p = 10 bar				$Q_{min/L}$ p = 25 bar [MPa]	$Q_{Smin/L}$ [MPa] for p = 25 bar			
		$Q_A = 20$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [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	< 5	< 5	< 5	< 5
$10^{-1}$	6	< 5	< 5	< 5	< 5	8	< 5	< 5	< 5	< 5
$10^{-2}$	9	< 5	< 5	< 5	< 5	16	9	< 5	< 5	< 5
$10^{-3}$	27		7	< 5	< 5	38		31	8	< 5
$10^{-4}$	54			36	13	64				22

Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading)										
L [mg/(s*m)]	$Q_{min/L}$ p = 40 bar [MPa]	$Q_{Smin/L}$ [MPa] for p = 40 bar				$Q_{min/L}$ p = 63 bar [MPa]	$Q_{Smin/L}$ [MPa] for p = 63 bar			
		$Q_A = 20$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [MPa]		$Q_A = 20$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [MPa]
$10^0$	< 5	< 5	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10
$10^{-1}$	9	< 5	< 5	< 5	< 5	14	< 10	< 10	< 10	< 10
$10^{-2}$	20	15	< 5	< 5	< 5	31		17	< 10	< 10
$10^{-3}$	43			15	8	54			41	19
$10^{-4}$	73				52					

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 3 [400 °C]
30	0.98	0.94	0.93	0.92	0.91

Maximal applicable gasket stress $Q_{Smax}$ [MPa]				
$Q_{Smax}$ [MPa] - ambient temperature	$Q_{Smax}$ [MPa] - temperature 1 [100 °C]	$Q_{Smax}$ [MPa] - temperature 2 [200 °C]	$Q_{Smax}$ [MPa] - temperature 2 [300 °C]	$Q_{Smax}$ [MPa] - temperature 2 [400 °C]
200	180	160	160	160

Sekant unloading modulus of the gasket $E_G$ [MPa]					
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [200 °C]	temperature 3 [300 °C]	temperature 3 [400 °C]
20	598	620	651	513	691
30	988	905	920	855	943
40	1378	1190	1189	1197	1195
50	1769	1476	1458	1539	1447
60	2159	1761	1728	1881	1699
80	2939	2332	2266	2566	2203
100	3720	2902	2805	3250	2707
120	4500	3473	3344	3934	3211
140	5281	4043	3882	4618	3715
160	6061	4614	4421	5302	4219
180	6842	5185			
200	7623				

Note: the content of darkened cells was not determined respectively is unnecessary	Revision 1	Creation date of this sheet:	27.01.2010
Changed values because of process optimisation			