

Company Address	Frenzelit-Werke, Frankenhammer 7, 95460 Bad Berneck
Gasket Type	novapress® UNIVERSAL
Thickness e_{GO} [mm]	2

Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading)										
L [mg/(s*m)]	$Q_{min/L}$ $p = 10 \text{ bar}$ [MPa]	$Q_{Smin/L}$ [MPa] for $p = 10 \text{ bar}$				$Q_{min/L}$ $p = 20 \text{ bar}$ [MPa]	$Q_{Smin/L}$ [MPa] for $p = 20 \text{ bar}$			
		$Q_A = 20$ [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}	6	< 5	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10
10^{-2}	13	< 5	< 5	< 5	< 5	16	< 10	< 10	< 10	< 10
10^{-3}	25		6	< 5	< 5	27		< 10	< 10	< 10
10^{-4}	38		33	10	9	39		26	14	12
10^{-5}	57			45	26	59			52	32

Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading)										
L [mg/(s*m)]	$Q_{min/L}$ $p = 40 \text{ bar}$ [MPa]	$Q_{Smin/L}$ [MPa] for $p = 40 \text{ bar}$				$Q_{min/L}$ $p = 80 \text{ bar}$ [MPa]	$Q_{Smin/L}$ [MPa] for $p = 80 \text{ bar}$			
		$Q_A = 20$ [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	< 10	< 10	< 10	< 10	< 10	< 20		< 10	< 10	< 10
10^{-1}	11	< 10	< 10	< 10	< 10	< 20		< 10	< 10	< 10
10^{-2}	22		< 10	< 10	< 10	33		17	< 10	< 10
10^{-3}	35		16	< 10	< 10	47			18	17
10^{-4}	49			23	19	59			55	30
10^{-5}	73				67					

Relaxation ratio P_{QR} for stiffness $C = 500 \text{ kN/mm}$				
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [200 °C]	temperature 3 [xx °C]
30 MPa	0,96	0,87	0,82	
50 MPa	0,96	0,84	0,74	
Q_{Smax} [220/120/80 MPa]	0,96	0,73	0,68	

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 3 [xx °C]
> 220	120	80	

Sekant unloading modulus of the gasket E_G [MPa]				
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [200 °C]	temperature 3 [xx °C]
20	1576	1185	1038	
30	1796	1384	1219	
40	2016	1582	1401	
50	2236	1781	1583	
60	2456	1979	1765	
80	2896	2376	2128	
100	3335	2773		
120	3775	3169		
140	4215			
160	4655			
180	5095			
200	5534			
220	5974			

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

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