

Teadit International Produktions GmbH

TF1590

sheet gasket - PTFE - EN 1514-1 - 92 x 49 x 2 mm



Maximum allowable gasket stress Q_{Smax}

T [°C]	21	150	250			
Q_{Smax} [MPa]	230	180	160			

Modulus of elasticity E_G and gasket thickness e_G

T [°C]	21		150		250				
Q_A [MPa]	e_G [mm]	E_G [MPa]	e_G [mm]	E_G [MPa]	e_G [mm]	E_G [MPa]			
1	1,858	-	1,864	-	1,959	-			
5	1,848	4742	1,854	1919	1,969	726			
10	1,838	3032	1,867	2171	1,874	767			
15	1,828	2965	1,806	1534	1,647	901			
20	1,818	3239	1,673	2142	1,468	1068			
25	1,808	3389	1,560	2076	1,340	1221			
30	1,797	3570	1,466	1882	1,245	1367			
40	1,773	3721	1,312	2176	1,108	1559			
50	1,734	4162	1,200	2079	1,019	1721			
60	1,656	5175	1,113	2253	0,949	1824			
80	1,510	6519	0,986	2363	0,846	2041			
100	1,400	6623	0,903	2375	0,773	2160			
120	1,311	6576	0,839	2483	0,712	2327			
140	1,237	6223	0,790	2510	0,659	2480			
160	1,174	5787	0,749	2524	0,613	2761			
180	1,120	5355	0,715	2561	x	x			
200	1,073	5108	x	x	x	x			
220	1,033	4930	x	x	x	x			
228	1,002	4716	x	x	x	x			
Intrusion	-	-	-	-	-	-			

Creep relaxation factor P_{QR} for stiffness $C = 500$ kN/mm

T [°C]	21		150		250				
Q_A [MPa]	P_{QR} [-]	Intrusion	P_{QR} [-]	Intrusion	P_{QR} [-]	Intrusion			
10	0,96	-	0,94	-	0,68	-			
20	0,96	-	0,68	-	0,42	-			
160	-	-	-	-	0,65	-			
180	-	-	0,76	-	x	-			
230	0,93	-	x	-	x	-			

Minimum required gasket stress in assembly $Q_{min(L)}$

L [mg/m/s]	10 ⁰			10 ⁻¹			10 ⁻²			10 ⁻³			10 ⁻⁴			10 ⁻⁵			10 ⁻⁶			10 ⁻⁷			
p [bar]	10	25	40	10	25	40	10	25	40	10	25	40	10	25	40	10	25	40	10	25	40	10	25	40	
Q _{min(L)} [MPa]	10	10	10	10	13	15	11	18	19	17	23	24	22	27	28	29	42	49	106	x	x	x	x	x	x

Minimum required gasket stress in service $Q_{Smin(L)}$ [MPa]

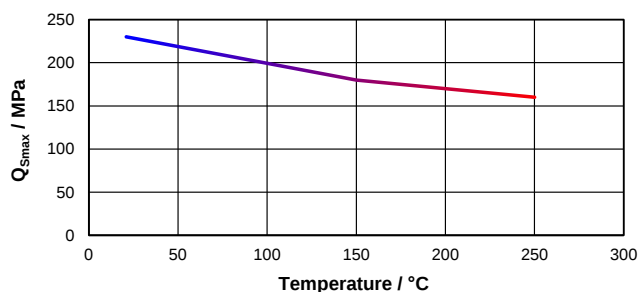
L [mg/m/s]	10^0			10^{-1}			10^{-2}			10^{-3}			10^{-4}			10^{-5}			10^{-6}			10^{-7}		
p [bar]	10	25	40	10	25	40	10	25	40	10	25	40	10	25	40	10	25	40	10	25	40	10	25	40
Q_A [MPa]	15	5	10	10	5	10	10	5	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	20	5	10	10	5	10	10	5	11	16	8	x	x	x	x	x	x	x	x	x	x	x	x	x
	30	5	10	10	5	10	10	5	10	10	5	10	10	7	13	19	22	x	x	x	x	x	x	x
	40	5	10	10	5	10	10	5	10	10	5	10	10	5	10	10	9	x	x	x	x	x	x	x
	60	5	10	10	5	10	10	5	10	10	5	10	10	5	10	10	6	16	30	x	x	x	x	x
	80	5	10	10	5	10	10	5	10	10	5	10	10	5	10	10	6	10	53	x	x	x	x	x
	100	5	10	10	5	10	10	5	10	10	5	10	10	5	10	10	5	13	51	x	x	x	x	x
	161	5	10	10	5	10	10	5	10	10	5	10	10	5	10	10	6	15	34	75	x	x	x	x

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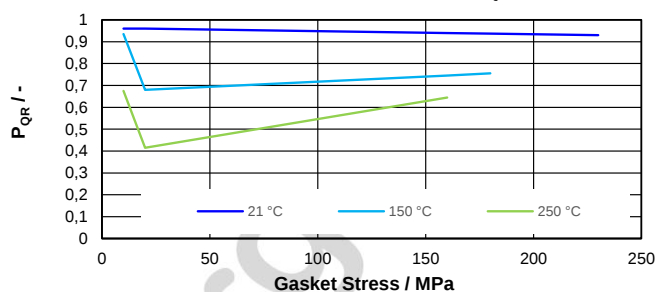
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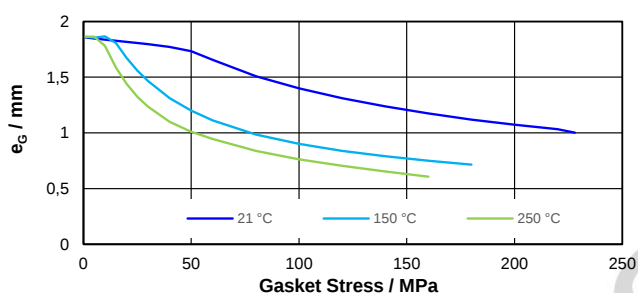
Maximum allowable Gasket Stress Q_{Smax}



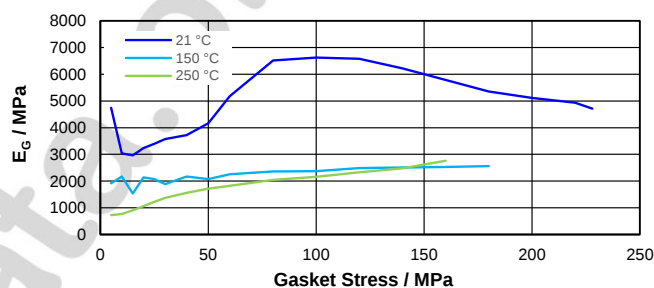
Creep Relaxation Factor P_{QR}



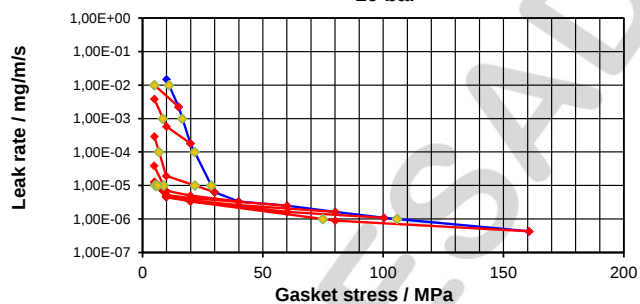
Gasket Thickness e_G



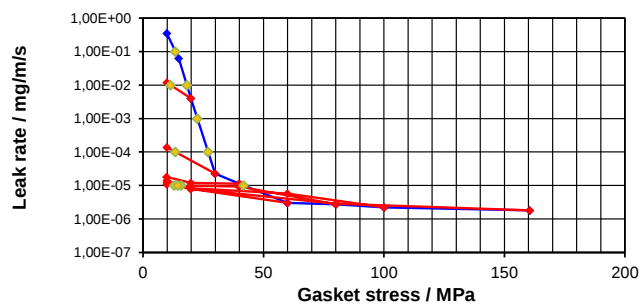
Modulus of Elasticity E_G



10 bar



25 bar



40 bar

