

Company Address	IDT Industrie- und Dichtungstechnik GmbH IDT Werk Kupferring, Postfach 100 152, D-09441 Annaberg-Buchholz
Gasket Type	IDT-UNISEAL WS 3400 Flachdichtung -asbestfrei-, FD01
Thickness $e_{GO}$ [mm]	2

Minimum stress to seal $Q_{min/L}$ (at assembly), $Q_{Smin/L}$ (after off-loading) for $p = 40$ bar									
L [mg/(s*m)]	$Q_{min/L}$ [MPa]	$Q_{Smin/L}$ [MPa]							
		$Q_A = 20$ [MPa]	$Q_A = 40$ [MPa]	$Q_A = 60$ [MPa]	$Q_A = 80$ [MPa]	$Q_A = 100$ [MPa]	$Q_A = 120$ [MPa]	$Q_A = 140$ [MPa]	$Q_A = 160$ [MPa]
$10^0$	<10	<10	<10	<10	<10	<10			
$10^{-1}$	16	<10	<10	<10	<10	<10			
$10^{-2}$	29		<10	<10	<10	<10			
$10^{-3}$	45			14	10	<10			
$10^{-4}$	65				22	13			
$10^{-5}$	90					46			
$10^{-6}$	142								
$10^{-7}$									
$10^{-8}$									

Relaxation ratio $P_{QR}$ for stiffness $C = 500$ kN/mm			
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [200 °C]
Stress level 1 [30 MPa]	0,95	0,84	0,80
Stress level 2 [50 MPa]	0,96	0,91	0,86
$Q_{Smax}$ [230 / 230 / 100 MPa]	0,99	0,88	0,84

Maximal applicable gasket stress $Q_{Smax}$		
$Q_{Smax}$ [MPa] – ambient temperature	$Q_{Smax}$ [MPa] – temperature 1 [100 °C]	$Q_{Smax}$ [MPa] – temperature 2 [200 °C]
230	230	100

Sekant unloading modulus of the gasket $E_G$ [MPa]			
Gasket stress [MPa]	ambient temperature	temperature 1 [100 °C]	temperature 2 [200 °C]
20	1459	1590	2015
30	1658	2050	2370
40	2202	2384	2602
50	2789	3033	2382
60	2950	3348	3285
80	3554	3729	3864
100	3999	3748	3325
120	4029	3456	
140	3923	3657	
160	3813	3402	
180	3820	3449	
200	3737	3646	
220	3775	3421	
230	3740	3782	

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

Creation date of this sheet: 03.12.2009