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MPA STUTTGART
Otto-Graf-Institut
Materialprüfungsanstalt Universität Stuttgart

Certificate

The Fiber based Gasket Material of Type **FEROLITE NAM 31** thickness 2 mm

of **FEROLITE JOINTING LTD**
C-178, Site-1, Bulandshar Road Industrial Area
Ghaziabad-201001, U.P., INDIA

was tested according to DIN EN 13555. The following gasket parameters were determined:

Minimum Stress to seal $Q_{min\,(L)}$ (at assembly), $Q_{S\,min\,(L)}$ (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^{+1}	11	<10	<10	<10	<10				
10^{0}	45			<10	<10	<10			
10^{-1}	75				28	<10			
10^{-2}	87					11			
10^{-3}	96					45			
10^{-4}									

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 [--/50/50 MPa]	--	0.88	0.80
Q_{Smax} [--/--/-- MPa]	--	--	--

$Q_{S\,max}$ [MPa] - ambient temperature	$Q_{S\,max}$ [MPa] - temperature 1 100 °C	$Q_{S\,max}$ [MPa] - temperature 2 200 °C	$Q_{S\,max}$ [MPa] - temperature 3 250 °C
--	--	150	120

Sekant unloading modulus of the gasket E_G [MPa]				
Gasket stress [MPa]	ambient temperature	temperature 1: 100 °C	temperature 2: 200 °C	temperature 3: 250 °C
10			1833	1842
20			2122	2532
30			2919	2371
40			2757	3316
50			3054	2927
60			2891	3658
80			3456	4538
100			4053	5092
120			3784	5143
140			4852	
160			4782	
180				
200				
220				
240				

This Certificate is valid only in connection with our Test Report
901 7659 003 Hh/Hae/Scr dated March 20. 2011
and the testing and boundary conditions given in this report.

Stuttgart, March 20. 2011

Dipl.-Ing. R. Hahn
Head of Sealing Technology