

Gasket Assembly Stress Recommendations

The minimum recommended assembly stress for Garlock gasketing products differ from “m” and “y” values, which do not take factors such as flange condition and blowout resistance into account. Garlock offers the following minimum assembly stresses as rules of thumb to use to calculate installation bolt torque values:

Compressed Sheet, GRAPH-LOCK®, GYLON® and GYLON EPIX™

Operating Pressure	Minimum Recommended Assembly Stress ^(†) - psi (N/mm ²)			
	1/32" (0.8mm)	1/16" (1.6mm)	3/32" (2.4mm) GYLON EPIX™	1/8" (3.2mm)
Up to 300 psig (20 bar)	2500 (17)	3600 (25)	3600 (25)	4800 (33)
Up to 800 psig (55 bar)	4800 (33)	5400 (37)	5400 (37)	6400 (44)
Up to 2000 psig (140 bar)	7400 (51)	8400 (58)	8400 (58)	9400 (65)

Maximum Recommended Assembly Stress - psi (N/mm ²)			
Utility Grade Sheets (700, 800, 2500's, 2900's)	15,000 (103)	Extreme Grade (9800, 9850, 9900)	15,000 (103)
BLUE-GARD® (3000, 3200, 3300, 3400, 3700)	15,000 (103)	GYLON® & GYLON EPIX™ Gasketing	15,000 (103)
Inorganic Fiber (5500, 5507)	15,000 (103)	GRAPH-LOCK® (3123, 3125, 3124, 3126, 3125SS)	10,000 (69)
MULTI-SWELL™ (†) (3760/3760-U)	10,000 (69)	GRAPH-LOCK® (3125TC & 3128)	15,000 (103)
LEAK-GARD® (3750)	15,000 (103)	THERMa-PUR (4122-FC)	7,500 (51)

(†) The minimum recommended gasket stress for GYLON® and Compressed Fiber gaskets in full face/flat faced flanges can be much lower. Stresses in the range of 1000 to 2000 psi are usually acceptable for liquid services. Please contact Applications Engineering when using these materials as full face gaskets in flat faced flanges, especially when dealing with gaseous media.

For low pressure systems (<150 psig) the minimum recommended gasket stress for Style 3750 and 3760 gaskets in full face/flat faced flanges is 500 psi, when used in fluids that create swell. Please contact Applications Engineering when stresses are lower.

Elastomeric (Rubber) & STRESS SAVER® Gaskets

Recommended Assembly Stress - psi (N/mm ²)		
	Minimum‡	Maximum
Elastomers (<70 duro Shore A)	600 (4)	900 (6)
Elastomers (≥ 70 duro Shore A)	600 (4)	1200 (8)
STRESS SAVER® (370, 6800, XP)	600 (4)	1200 (8)

‡ Most elastomeric gaskets will seal at approximately 200 psi assembly stress.

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