

Tension Values
(in Normal-weight Concrete lbs.)

ANCHOR DIAMETER	EMBEDMENT DEPTH	CONCRETE STRENGTH		
		2000 PSI	4000 PSI	5000 PSI
3/16	1"	600	650	800
	1-1/2"	1090	1090	1220
	1-3/4"	1450	1460	1730
1/4	1"	750	800	950
	1-1/2"	1380	1820	2170
	1-3/4"	2020	2380	2770

Tension and Shear Values
(in CMU 1" Embedment)

ANCHOR DIAMETER	TENSION (lbs.)		SHEAR (lbs.)	
	LIGHT WEIGHT	MEDIUM WEIGHT	LIGHT WEIGHT	MEDIUM WEIGHT
3/16	220	340	400	730
1/4	250	500	620	1000

For minimum edge distance and spacing distance, please refer to the ICC-ES report or Miami-Dade report for this product. Lightweight and medium-weight Concrete Masonry Units (CMU) were defined by ASTM C 90.

Shear Values
(in Normal-weight Concrete lbs.)

ANCHOR DIAMETER	EMBEDMENT DEPTH	CONCRETE STRENGTH		
		2000 PSI	4000 PSI	5000 PSI
3/16	1"	720	720	860
	1-1/2"	860	860	860
	1-3/4"	870	990	990
1/4	1"	900	1360	1440
	1-1/2"	1200	1380	1670
	1-3/4"	1670	1670	1670

NOTE: Indicated tension and shear failure values were obtained in tests conducted at CEL Consulting. Designated holding power depends on the quality of the masonry material, depth of embedment and proper hole size. These figures are offered only as a guide and are not guaranteed in any way by Illinois Tool Works Inc. The figures indicate average ultimate tension and shear failure values. A safety factor of 4:1 or 25% of ultimate value is generally accepted as a safe working load. However, reference should always be made to applicable codes for the specific safe working ratio. All values are based on close tolerance holes drilled with Buildex Tapcon® carbide drill bits. Performance of the Tapcon anchor may vary in extremely hard concrete aggregates. Consult your Buildex representative for further information.

As in the case with all applications, Buildex can only suggest typical fasteners for typical applications and that the connection design is the sole responsibility of the Building Design Engineer, Architect or otherwise responsible person charged with the design of the connection. For further product information, please contact the nearest Authorized Buildex Distributor or the Buildex Technical Service Department at 1-800-323-0720.