

Maximum Tensile and Shear Capacity For Static Loads

Anchor & Hole Size	Limestone Aggregate			Unreinforced Stone Aggregate Concrete							Unreinforced Lightweight (Idealite)		
	Embed. (in.)	2000 psi		Embed. (in.)	3000 psi		5000 psi		7000 psi		Embed. (in.)	5000 psi	
		Tension (lb.)	Shear (lb.)		Tension (lb.)	Shear (lb.)	Tension (lb.)	Shear (lb.)	Tension (lb.)	Shear (lb.)		Tension (lb.)	Shear (lb.)
1/4	1-1/8	1132	1211	1-1/8	1320	1751	1760	2316	2464	2494	1-1/2	1861	1947
1/4	1-3/4	1256	1211	1-1/2	1856	1751	2473	2316	3462	2494	-	-	-
5/16	1-1/4	1308	1210	1-1/4	2057	1839	2742	2530	3939	3439	1-1/2	2493	3064
5/16	2	1181	1210	1-3/4	2389	1839	3185	2530	4459	3439	-	-	-
3/8	1-1/4	994	1223	1-1/2	2876	4286	3834	5213	5368	5658	1-3/4	3125	4289
3/8	4	1728	1223	4	3488	4286	4650	5213	6510	5658	-	-	-
1/2	1-3/4	1542	3009	2-1/4	3473	7138	5789	10748	8105	11550	2-1/4	4778	9833
1/2	6	2695	3009	5	4809	7138	8015	10748	11221	11550	-	-	-
5/8	-	-	-	3-1/2	7582	10719	12636	15583	17690	16700	2-1/2	6455	12500
5/8	-	-	-	4-3/4	9179	10719	15299	15583	21419	16700	-	-	-
3/4	-	-	-	3	11579	15537	19299	21000	27019	23103	3-1/2	17293	19050
3/4	-	-	-	7	15444	15537	25740	21000	36036	23103	-	-	-
7/8	-	-	-	4-1/2	15266	-	25444	25099	33622	28718	-	-	-
7/8	-	-	-	7	16992	-	28320	25099	39648	28718	-	-	-
1	-	-	-	5-1/2	16351	-	27252	33083	38153	35700	4-1/2	21616	31666
1	-	-	-	7	17837	-	29728	33083	41619	35700	-	-	-
Source	1			2							2		

Sources (available upon request):

1. University of Texas, Austin, TX (using ICBO-ES testing criteria); 1993.
2. AA Engineers & Associates, Inc., Denver, CO; 1981.

NOTES:

- Information provided only for the use of a qualified design engineer. Use of technical data by persons not qualified could cause serious damage, injury, or even death.
- Ultimate values shown. For static loads, use one-fourth of the maximum tensile and shear capacities for the recommended 4:1 safety factor.
- Tested to ASTM E488 Test Standard
- Sources (available upon request): U.S. Testing Co., Tulsa, OK



Wej-It Tie Wire WTW Anchor

- For bracing and hanging acoustical ceiling tile, hanging electrical lights or other lightweight applications

Order Information

Catalog Number	Anchor Dia. & Length (in.)	Min. Embedment (in.)	Eye Diameter	Quantity: Cards Per Box/Carton
WTW1421	1/4 x 2 1/4	1 1/4	9/32	100/1000

Edge Distance

Embedment (E) in Anchor Diameters	Edge Distance
$E < 6d$ (shallow)	1.75E
$6d \leq E \leq 8d$ (standard)	1.00E
$8d < E$ (deep)	0.75E