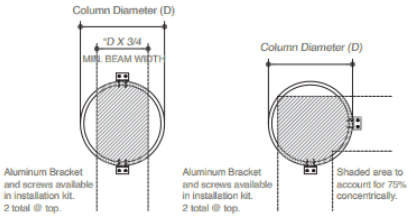
Building Code Compliance

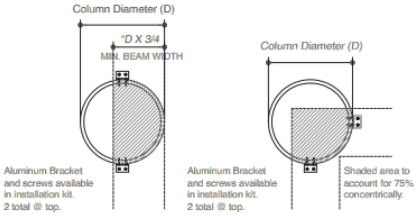
HB&G has updated our product testing to comply with changes to the Building Codes (IBC/IRC) and to the Acceptance Criteria for Fiberglass Columns. The 2 major changes that impacted PermaCast®Plus and PermaLite® were:

- Eccentric Axial Loading – the new maximum allowable load values are based on eccentric (offset) axial load as opposed to concentric (centered) axial loading.
- Increased Safety Factor – the safety factor on the allowable load was increased from 2.5 times to 5 times

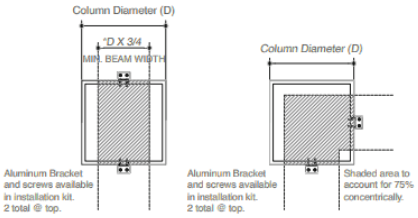
Eccentric loading of columns is not recommended by HB&G.



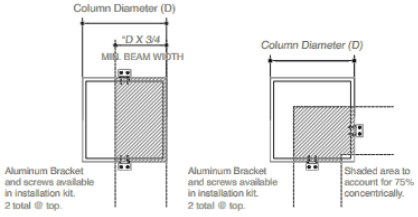
Acceptable Applications



Unacceptable Applications



Acceptable Applications



Unacceptable Applications

HB&G recommends following the installation instructions included with the product purchased. HB&G structural products conform to 2024 IBC/IRC.

Round Tapered PermaCast®Plus Plain and Fluted

Bottom Diameter	Eccentric Loading Avg. Allowable Load (Lbs.)	Avg. Ultimate Load (Lbs.)	Concentric Load (Lbs.)
6″	4,580	22,900	8,000
8″*	4,600	23,000	10,000
10″*	4,690	23,450	14,000
12″*	4,800	24,000	18,000
14″	7,800	39,000	20,000
16″	8,250	41,250	20,000
18″	10,000	50,000	20,000
20″	10,000	50,000	20,000
22″	10,000	50,000	20,000
24″	10,000	50,000	20,000
28″	10,000	50,000	20,000
30″	10,000	50,000	20,000

Square PermaCast®Plus Plain, Fluted, RoughSawn®, and Recessed Panel

6″*	5,100	25,500	8,000
8″*	5,150	25,750	10,000
10″*	5,640	28,200	14,000
12″*	5,900	29,500	18,000
14″	8,500	42,500	20,000
16″	9,500	47,500	20,000

Round No-Taper PermaCast®Plus Plain and Fluted

8″	4,590	22,950	10,000
10″	4,670	23,350	14,000
12″	4,750	23,750	18,000
14″	7,000	35,000	20,000
16″	7,000	35,000	20,000
18″	7,000	35,000	20,000
24″	9,000	45,000	20,000

Craftsman Plain and RoughSawn® PermaCast®Plus

10″ x 5.5″ x 66″	9,000	45,000	10,000
10″ x 8″ x 66″	9,000	45,000	10,000
10.25″ x 7.5″ x 7′	7,000	35,000	10,000
12″ x 8″ x 5′	8,000	40,000	14,000
12″ x 8″ x 6′	8,000	40,000	14,000
12″ x 8″ x 66″	8,000	40,000	14,000
12″ x 10″ x 6′	8,000	40,000	14,000
12″ x 10″ x 10′	8,000	40,000	14,000
14″ x 12″ x 9′	8,000	40,000	14,000
16″ x 9″ x 6′	9,000	45,000	14,000
16″ x 9″ x 8′	9,000	45,000	14,000
16″ x 9″ x 58″	9,000	45,000	14,000
16″ x 12″ x 6′	9,000	45,000	14,000
16″ x 12″ x 8′	9,000	45,000	14,000

Square PermaLite®

6″	3,000	15,000	5,000
8″	3,000	15,000	6,500
10″	3,000	15,000	7,000

*Covered in accordance with ICC ESR-1361 / FL# 3102

Conforms with 2018 IBC/IRC

Note - Eccentric (off-center) loading has a 5 times safety factor.
- Eccentric (off-center) loading of columns is not covered by the warranty.

Round Wood Columns

6″	2,000
8″	3,200
10″	4,200
12″	5,100

PermaPost®

5″ Colonial	1,300
6″ Colonial	5,000
5″ Square	5,000
6″ Chamfered	5,000

Wood Porch Posts

4″	1,000
5″	3,000
6″	5,800

*Concentric loading

Conforms with 2018 IBC/IRC