

DECOR INNOVATIONS DISTINCTIVE RAIL

DISTINCTIVE • INNOVATIVE • SOLUTIONS



SQUARE DURALITE



**RECESSED PANEL
DURALITE**



ROUND DURALITE



**ROUND TAPERED
DURACAST**

Fibreglass Column Installation

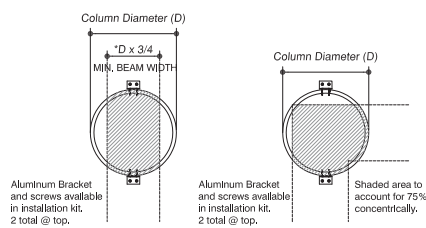
*** Standard industry installation practices of fiberglass columns include positioning of column as a loadbearing support and using aluminum L brackets to secure in place.
For detailed manufactured approved installation, refer to below methods.***

Building Code Compliance

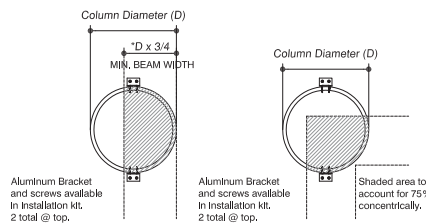
We have updated our product testing to comply with changes to the Building Codes (IBC/IRC) and to the Acceptance Criteria for Fiberglass Columns. The 2 major changes that impacted PermaCast® and PermaLite® were:

- 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

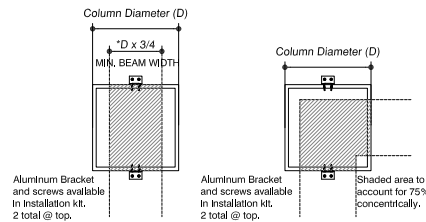
Eccentric loading of columns is not recommended.



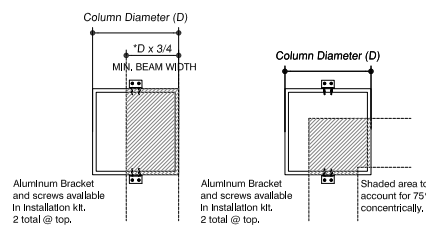
Acceptable Applications



Unacceptable Applications



Acceptable Applications



Unacceptable Applications

DIDR recommends following the installation instructions included with the product purchased.

Structural products conform to 2018, 2015, 2012, and 2009 IBC/IRC.

Round Tapered PermaCast® Plain and Fluted

| Bottom Diameter | Eccentric Loading | | |
|-----------------|----------------------------|---------------------------|------------------------|
| | Avg. Allowable Load (Lbs.) | Avg. Ultimate Load (Lbs.) | Concentric Load (Lbs.) |
| 6" | 4580 | 22900 | 8000 |
| 8" | 4600 | 23000 | 10000 |
| 10" | 4690 | 23450 | 14000 |
| 12" | 4800 | 24000 | 18000 |
| 14" | 7800 | 39000 | 20000 |
| 16" | 8250 | 41250 | 20000 |
| 18" | 10000 | 50000 | 20000 |
| 20" | 10000 | 50000 | 20000 |
| 22" | 10000 | 50000 | 20000 |
| 24" | 10000 | 50000 | 20000 |
| 28" | 10000 | 50000 | 20000 |
| 30" | 10000 | 50000 | 20000 |

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

| | | | |
|---------|------|-------|-------|
| 6"x6" | 5100 | 25500 | 8000 |
| 8"x8" | 5150 | 25750 | 10000 |
| 10"x10" | 5640 | 28200 | 14000 |
| 12"x12" | 5900 | 29500 | 18000 |
| 14"x14" | 8500 | 42500 | 20000 |
| 16"x16" | 9500 | 47500 | 20000 |

Round No-Taper PermaCast® Plain and Fluted

| | | | |
|-----|------|-------|-------|
| 6" | 4580 | 22900 | 8000 |
| 8" | 4590 | 22950 | 10000 |
| 10" | 4670 | 23350 | 14000 |
| 12" | 4750 | 23750 | 18000 |
| 14" | 7000 | 35000 | 20000 |
| 16" | 7000 | 35000 | 20000 |
| 18" | 7000 | 35000 | 20000 |
| 24" | 9000 | 45000 | 20000 |

Craftsman Plain and RoughSawn® PermaCast®

| | | | |
|----------------|------|-------|-------|
| 10"x6"x66" | 9000 | 45000 | 10000 |
| 10"x8"x66" | 9000 | 45000 | 10000 |
| 10.25"x7.5"x7' | 7000 | 35000 | 10000 |
| 12"x8"x5' | 8000 | 40000 | 14000 |
| 12"x8"x6' | 8000 | 40000 | 14000 |
| 12"x8"x66" | 8000 | 40000 | 14000 |
| 12"x10"x6' | 8000 | 40000 | 14000 |
| 12"x10"x10' | 8000 | 40000 | 14000 |
| 14"x12"x9' | 8000 | 40000 | 14000 |
| 16"x9"x6' | 9000 | 45000 | 14000 |
| 16"x9"x8' | 9000 | 45000 | 14000 |
| 16"x12"x58" | 9000 | 45000 | 14000 |
| 16"x12"x6' | 9000 | 45000 | 14000 |
| 16"x12"x8' | 9000 | 45000 | 14000 |

Round No-Taper PermaLite/ Duralite

| | | | |
|-----|------|-------|------|
| 8" | 4000 | 20000 | 8000 |
| 10" | 4000 | 20000 | 9000 |

Square PermaLite/Duralite Plain and Recessed Panel

| | | | |
|-----|------|-------|------|
| 6" | 3000 | 15000 | 5000 |
| 8" | 3000 | 15000 | 6500 |
| 10" | 3000 | 15000 | 7000 |
| 12" | 3000 | 15000 | 7500 |

*Covered under ICC ESR-1361 / FL# 3102

Conforms with 2018, 2015, 2012 and 2009 IBC/IRC

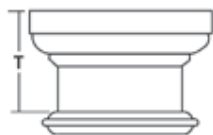
Note- Eccentric (off-center) loading has a 5 times safety factor.

- Eccentric (off-center) loading of columns is not covered by the warranty.

INSTALLATION TIPS

Note 1: Decorative Capitals

When installing a round Fiberglass column with an decorative capital, subtract the cut at bead ("T") dimension (distance from top of decorative capital to top of neck mould) and add the height of the decorative capital. This can lengthen or shorten the height of the column. You can find the cut-at-bead ("T") dimension in the products brochure.



Note 2: Required Loading

Ensure concentric loading of the column, 100% of bottom must contact substrate and 75% of top must contact soffit.

Note 3: Handrail

When attaching handrails or rail mounting hardware to round or square fiberglass columns, holes must be pre-drilled.

Note 4: Cap and Base

Light sanding may be needed for correct fitting of base.

Note 5: Do not install columns below grade or fill with concrete.

Note 6: If used in free stand ing applications, structural posts must be used inside column shafts.

PAINT TIPS:

- Make sure all surfaces are clean. Prime with an exterior-grade bonding primer (XIM primer 400 white or made for use with fiberglass or plastics) and 2 coats of high quality exterior grade acrylic latex paint.
- Follow paint manufacturer's instructions for priming and finishing of fiberglass composite column and polyurethane cap and base.
- Do not paint using dark colors (dark colors are considered any color that falls within the L values of 56 to 0). L is a measure of the lightness of an object, and ranges from 0 (black) to 100 (white).

09/19

Round or Square Fiberglass (FRP) Installation Instructions



1. Measure opening in four places front, back, left, and right of column (see drawing). Mark column accordingly. If column is too long, shorten length from bottom.



2. Use an abrasive saw (masonry or carbide tip blade). Fine trim top and bottom with rasp to ensure flat surface contact.



3. Slip base over top of column shaft and allow to slide to base of shaft. Slip cap over shaft and allow to rest on neck mould. Some sanding may be required.



4. Put assembly in place and plumb. Make sure load is centered over column shaft and evenly distributed around the bearing surface.



5. Apply construction adhesive in the way you would apply a caulk, around the column shaft where it contacts the floor and beam. Use your finger to press/squish the bead of adhesive into contact with those surfaces.



6. Mark and drill holes in floor and column shaft for corner/ angle brackets (not included).



7. Apply construction adhesive* to top of cap, press against structure, and screw or nail into place.



8. Apply construction adhesive* to bottom of base and nail or screw to floor.

Installing Neck Moulding to Square Fiberglass Columns (If included)



9. Mark location for supplied neck moulding. Apply construction adhesive* and put neck mould in place.



10. Pre-drill holes through neck mould into column. Screw neck mould in place or pre-drill and use finish nails.



11. Set screws or nails and use caulk to cover holes.

*Use a non-acetone based exterior grade construction adhesive.

WARRANTY IS VOID IF INSTALLATION INSTRUCTIONS ARE NOT FOLLOWED

