

OWENS INFRASTRUCTURE **SOLUTIONS**

PINKBAR[®] **FIBERGLAS[™] REBAR** RESIDENTIAL **BUILDING CODE GUIDE**



Engineered to meet the codes and standards you trust -PINKBAR[®] Fiberglas[™] Rebar is a proven stronger, lighter, and more durable alternative to traditional concrete reinforcement materials.

- PINKBAR® is 2x stronger than grade 60 steel in sizes #4 and #5 as specified in the IRC and ACI 332.
- #3 PINKBAR[®] replaces #4 steel rebar in flatwork applications requiring reinforcement for shrinkage crack mitigation.
- Designed for use in residential concrete applications, including flatwork, footings, and foundation walls, as prescribed in ACI 332 cited in the International Residential Code (IRC).

PINKBAR[®] Fiberglas[™] Rebar **Intended Applications**

- Non-structural driveway slabs, patios, sidewalks, basement slabs'
- Horizontal reinforcing in cast-in-place basement walls in height for temperature and shrinkage²
- Vertical reinforcing in cast-in-place basement walls up to 10 ft. in height classified as "NR" in table R404.1.2(8) of the IRC³
- Horizontal reinforcing in continuous poured wall footings where reinforcing is required for temperature & shrinkage only



Further validation may be required by an engineer or building official in the following applications:

- · Vertical reinforcing in cast-in-place basement walls up to 10 ft. in height where reinforcing is required per table R404.1.2(8) of the IRC.
- · Structural foundation slab and/or structural masonry.
- All vertical reinforcing in walls in seismic design categories D, E and F.
- 1 All temperature and shrinkage reinforcing (including both PINKBAR® and steel rebar) in residential concrete where reinforcing inspections are not required by R109.1.1 of the IRC: Inspection of the foundation shall be made after poles or piers are set, trenches or basement areas are excavated, any required forms erected, and any requited reinforcing steel is in place and supported prior to the placing of concrete. The foundation inspection shall include excavations for thickened slabs intended for the support of bearing walls, partitions, structural supports, or equipment and special requirements for wood foundations.
- 2 Per R9.2.7 in ACI 322, "Horizontal wall reinforcement is placed to reduce width of cracking that can result in restraint against volume changes due to shrinkage and temperature change. The serviceability requirements of residential concrete allow for crack development.
- 3 NR represents "Not Required" per the IRC. In these situtations, the temperature- and shrinkage-resistant bar is still required. but the bar will not be resisting any structural forces.

HOW WE BUILD NOW™

Checklist — Building with PINKBAR[®] Fiberglas[™] Rebar

Use the checklist below to assess your next job. If all fields remain unchecked, you're ready to start. If you check one or more fields, you might need an engineer's approval or to discuss with your local building official before moving forward:

- □ My next job includes vertical reinforcing in cast-in-place basement walls up to 10 ft. in height where reinforcing is required per table R404.1.2(8) of the IRC.
- □ My next job includes structural foundation slab and/or structural masonry.
- □ My next job includes vertical reinforcing in walls in seismic design categories D, E and F.

PINKBAR® Fiberglas[™] Rebar can also be used in commercial applications; however, these applications might also require the engineer and building official's approval prior to construction. PINKBAR® Fiberglas[™] Rebar is not intended for use as reinforcement for high load-bearing applications: bridges, parking garages, complex foundations, balconies, or concrete pavement for heavy state highways. In these instances, please use Owens Corning® MATEENBAR[™] Fiberglas[™] Rebar.

Code Reference
Comparison –
PINKBAR® vs. Steel

CODE AUTHORITY	PINKBAR [®] FIBERGLAS™ REBAR	STEEL REBAR
ASTM Specification	D7957	A615
ACI – General Concrete Design	440.1R-15 440.11-22	318-19
ACI — Residential Concrete Design	332 Prescriptive Design Tables from AEDA Software using ACI 440.1R-15 Design Methodology	332 Prescriptive Design Tables
International Building Code (2018 and 2021)	Approved for use through ICC-ESR 4593 ⁴	Included
International Residential Code (2018 and 2021)	Approved for use through ICC-ESR 4593 ⁴	Included
TMS 402/602-22 (Masonry Design)	Included in Appendix D	Included

4 Owens Corning® PINKBAR®+ Fiberglas™ Rebar currently holds ICC-ES approval as an ASTM D7957-compliant material. PINKBAR® Fiberglas™ Rebar meets the same requirements as PINKBAR®+ as an ASTM D7957-compliant material with similar properties as verified by the University of Miami.

Other approvals & Jurisdictions



Meets or exceeds standards for use in the United States

PINKBAR® Fiberglas™ Rebar complies with all required standards for use in sidewalks, driveways, parking slabs and other residential and commercial applications in the United States



Wisconsin Building Product Evaluation

PINKBAR[®] Fiberglas[™] Rebar is approved for use in residential and commercial applications by the Wisconsin Building Product Evaluation

MDOT - Curb & gutter special provision

PINKBAR[®] Fiberglas[™] Rebar is approved for use in curb and gutter by the Michigan Department of Transportation

City of Austin (TX) & TXDot

The city of Austin, TX has approved PINKBAR[®] Fiberglas[™] Rebar for use in riprap, driveways, sidewalks, and other residential and commercial applications

Contractors across the US are building faster and safer with PINKBAR®



HOW WE BUILD NOW™

SWINS INFRASTRUCTURE SOLUTIONS

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