



ZeBAR™ BFRP Reinforcement products are structural, eco-friendly alternatives for traditional steel reinforcement. **ZeBAR™** has been engineered for the most difficult applications, and where high strength, extreme resistance, and corrosion-proof properties are preferred.

ZeBAR™ is an approved reinforcement rebar product as per ACI 440R-07 for use in concrete and masonry structures and complies with ICC Evaluation Service, Acceptance Criteria for Fiber-Reinforced Polymer (FRP) Bars, and for Internal Reinforcement of Concrete Members [AC454] dated June of 2016. In a recent update, ACI 440 11-22 now proclaims that GFRP, and BFRP by proxy, can be used in structures and designed in the same manner as [equal to] steel.

Additional ACI requirements and Standards: ISIS Design Manual #3. Reinforcing concrete structures with fiber reinforced polymers (FRP's).

ACI 440R-07	Addresses multiple FRP's for utilization
ACI 440.1R-06	Design and structural use of FRP bars
ACI 440.6-08	Directs assessment and acceptance of FRP bars sourced as reinforcement for concrete.

General Properties


ZeBAR™ BFRP Rebar has a specific tensile strength that is 2.5 to 3 times greater than Grade 60 Steel rebar and is only ~25% of its weight! Lighter weight translates to significant savings in transportation and handling costs.



ASTM Testing Standards	
ASTM D570	Water absorption of polymers
ASTM D619	Conditioning of polymers for testing
ASTM D695	Compressive properties of rigid polymers
ASTM D7205	Tensile and tensile modulus
ASTM D790	Flexural properties of reinforced polymers
ASTM D792	Density and specific gravity
ASTM D2734	Void content of reinforced polymers
ASTM D3410	Compressive properties of polymer matrix composite

ZeBAR™ is made from naturally occurring basalt rock and features a similar coefficient of thermal expansion as concrete and therefore reduces the cracking mechanism during extreme temperature fluctuations and / or concurrent disparity.

Unlike steel or other FRP rebars, **ZeBAR™** is highly resistant to alkali, salts, chemicals, and moisture. These extraordinary characteristics confirm its performance lasting more than 100 years in a concrete structure; reducing or eliminating the ongoing costs of maintenance, repair and ultimate replacement.

Typical Applications	Extended Benefits
<ul style="list-style-type: none"> • Precast storage / containment structures; residential, commercial & industrial SOG’s • Concrete exposed to marine chlorides; coastal and hydraulic structures • Concrete exposed to regular freeze / thaw; parking garages and residential structures • Masonry strengthening & tilt-up; barrier and sound wall panels; MSE panels • Shielding, high voltage, electromagnetic; airports, roadways, and light rail 	<ul style="list-style-type: none"> • Resistant to acids, chemicals & moisture <ul style="list-style-type: none"> » Less cover, reduced weight & costs • 100+ year life-cycle without added costs <ul style="list-style-type: none"> » Greater durability; no deterioration • Eliminates spalling caused by steel corrosion <ul style="list-style-type: none"> » Less maintenance; no unsightly stains • Excellent for seismic, blast & strong wind forces; enhanced ductility • Non-conductive; no RF interference
	

ZeBAR™BFRP Rebar is a green, sustainable, and resilient alternative to steel rebar, with greater strengths and lighter weight, making it safer and easier use, to handle and transport.

When considering your best in-place cost to value available: ZeBAR™ is the most efficient and cost-effective choice for the lifecycle of concrete!

Disclaimer: The information contained herein is to guide customers in determining whether **ZeBAR™** is a suitable reinforcement product for their applications. It is suggested that all customers inspect and test products before their final use and satisfy themselves as to the product’s performance and suitability for their application. Nothing noted herein shall constitute as a warranty, expressed or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent inferred. **ZeBAR™** products must be used in accordance with applicable codes and manufacturer’s instructions. The exclusive remedy for any proven claims is material replacement.