

FIBERGLASS REBAR



PHYSICAL & MECHANICAL PROPERTIES

Nominal diameter			Nominal Cross Sectional Area		Unit weight/length		Guaranteed ultimate tensile force		Guaranteed ultimate tensile strength		Ultimate tensile strain	Mean tensile modulus of elasticity	
Bar Size	In	mm	in²	mm²	lb/ft	kg/m	kip	kN	ksi	MPa	%	msi	GPa
#2	0.250	6	0.05	32	0.05	0.07	6.76	30.08	138.0	951	2.03	6.80	46.88
#3	0.375	10	0.11	71	0.11	0.16	15.07	67.03	137.0	945	2.01	6.80	46.88
7/16	0.4375	11	0.15	95	0.134	0.23	24.728	110	145	1000	2	6.90	46.88
#4	0.500	13	0.20	129	0.18	0.27	26.90	119.66	134.5	927	1.98	6.80	46.88
#5	0.625	16	0.31	199	0.32	0.47	40.30	179.26	130	896	1.91	6.80	46.88
Mean transverse shear strength				Bond strength		Fiber mass content		Moisture absorption in 24H at 50°C (122°F)		Moisture absorption to saturation at 50°C (122°F)		Mean glass transition temperature (DSC)	
ksi		MPa		PSI	MPa	%		%		%		°F	°C
≥19		≥131		≥1 100	≥7.6	≥70		≤.25		<1.0		≥212	≥100

FIBERGLASS REBAR

2x stronger
than steel



7x lighter
than steel



Lower
cost



Easier to haul



Rust proof



Raven Bar by Binevir Composites Fiberglass Rebar is a non-metallic and durable concrete reinforcement bar used for structural and non-structural applications to significantly elevate the tensile strength of concrete. It is produced in a proprietary manufacturing process from a blend of premium fiberglass roving and resin matrix. Its sand-coated surface enhances concrete bonding and greatly reduces fiberglass splintering.

Raven Bar Fiberglass Rebar stands as a testament to our commitment to delivering the highest quality and performance construction materials. Meticulously manufactured using premium components and innovative custom manufacturing processes, this rebar offers unparalleled performance and reliability.

The patented coarse sand-coated layer on the surface of our rebar ensures superior bonding with concrete and assures the structural integrity of your construction project. It also helps greatly reduce and even eliminate hand damage from glass splintering during product handling.

Raven Bar Fiberglass Rebar not only meets but exceeds construction industry standards. It is significantly lighter than steel, which notably reduces logistics costs and construction duration of a project. Our products empower your construction projects with high-quality, high-reliability long-lasting reinforcement solutions, providing you with peace of mind and confidence in your construction endeavors.

CODE COMPLIANCE

ASTM D7957

- Raven Bar by Binevir Composites Fiberglass Rebar meets the physical and mechanical requirements of ASTM D7957 material standard.

Production lot certificates are provided upon request and purchase.

ACI 332 & ACI 440

- Raven Bar by Binevir Composites Fiberglass Rebar can be used in residential concrete, including footings and foundation walls, as prescribed in ACI 332 using ACI 440 design methodology.

ICC-ES AC454

- Meets or exceeds ICC-ES AC 454 acceptance criteria, including bond strength, tensile strength, and tensile modulus of elasticity.

TMS 402/602

- Raven Bar by Binevir Composites Fiberglass Rebar can be used with TMS 402/602-22 Appendix D as reinforcing for masonry walls.

Proven Crack Mitigation in Concrete Flatwork

Independent testing has proven that #3 Fiberglass Rebar mitigates shrinkage cracks as effectively as #4 steel in poured slabs and can increase the long-term service life of flatwork due to the non-corrosive properties of fiberglass rebar.

(*Restrained Shrinkage Testing at the University of Brescia, Italy, 2020.*)

Areas of application:

- **Residential**
 - Driveways
 - Sidewalks
 - Pool Decks
 - Basement floors and walls
 - Footings
 - Masonry
 - ICF construction
- **Commercial & Industrial**
 - Parking slabs
 - Warehouse floors
 - Agricultural slabs
 - Loading docks
 - Architectural precast
 - Truck aprons
 - Pour back slabs



Product of Binevir Composites