



I-ACT FRP REBAR LIGHTER IN WEIGHT & STRONGER IN STRENGTH

About I-ACT

I-ACT "Innovations in Advanced Composites & Technology" is a Houston-based company that specializes in providing advanced construction and maintenance solutions for a variety of industries. Our focus is on improving roads, infrastructure, buildings, and industrial facilities through the use of cutting-edge composite materials and technology.

Products & Services

I-ACT is dedicated to providing its customers with specialized products that are both unique and innovative. Our team offers technical and design support for our products, providing solutions to engineering and critical problems while saving time and money in both the short and long term. With I-ACT, you can trust that you are receiving the highest quality products and services available in the industry.

Our Products are:



High Strength

2X Stronger in Tensile Strength compared to same diameter steel rebar.



Lighter in Weight

I-ACT FRP Rebar is 4X lighter than the same diameter steel rebar.



Rust Free

I-ACT FRP Rebar is resistant to rust and corrosion and requires less concrete cover.



Less Cracks

Due to coefficient of thermal expansion being closer to that of concrete, FRP rebar minimizes cracks in concrete when compared to steel rebar, and has no stain through, which is one of the problems that is often ignored.

APPLICATIONS

Industrial /Commercial	Residential
Precast Industry	Foundations and Footings of buildings and structures
Parking Slabs	Reinforcing of masonry units
Sidewalk	Swimming Pools
Hydraulic Structures	Drive pathways
Flooring of Industrial Facilities	Basement walls

Codes & Regulatory Compliance

ASTM D7957

I-ACT Rebar is designed to meet the physical and mechanical requirements of the ASTM D7957 material standard, backed up with production lot certificates upon request.

ACI 440

I-ACT rebar is a versatile and reliable option for reinforcing residential concrete structures, such as footings and foundation walls. I-ACT rebar high-quality rebar is designed to meet the standards set forth by the ACI 440 methodology.

ICC-ES AC454

I-ACT rebar is tested and proven to meet or exceed the ICC-ES AC 454 acceptance criteria for tensile strength, and tensile modulus of elasticity, bond strength.

Physical & Mechanical Properties

Bar Size	Nominal Diameter		Nominal Cross sectional area		Mean Tensile Modulus of Elasticity		Guarnteed Ultimate Tensile Force		Guarnteed Ultimate Tensile Stress		Unit Weight	
	in	mm	in ²	mm ²	Msi	GPa	Kip	KN	Ksi	Mpa	lb/ft	Kg/m
#2	0.250	6	0.05	32	6.97	48.08	7.10	31.58	144.90	998.55	0.05	0.07
#3	0.375	10	0.11	71	6.97	48.08	15.82	70.38	143.85	992.25	0.11	0.16
#4	0.500	13	0.2	129	6.97	48.08	28.25	125.64	150.68	973.35	0.18	0.27
#5	0.625	16	0.31	199	6.97	48.08	42.32	188.22	136.50	940.80	0.32	0.47

Bond Strength		Mean Transverse Shear Strength		Fiber Mass Content	Moisture Absorbition in 24 H AT 50°C (122°F)	Moisture Absorption To Saturation at 50°C (122°F)	Mean Glass Transition Temperature		Ultimate Tensile Strain
psi	MPa	ksi	MPa	%	%	%	°F	°C	%
≥1100	≥7.6	≥19	≥131	≥80	≤0.25	<1.0	≥212	≥100	2±0.02

GET IN TOUCH

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HANDLING & INSTALLATION

- It's important to avoid shearing fiberglass bars. Instead, use a fine-blade saw, grinder, and carborundum or diamond blade to field-cut them. Sealing the ends of fiberglass bars is not necessary.
- Chairing: make sure to place chairs at a spacing that ensures adequate concrete cover (for concrete applications only). Additionally, use the same tying methods as you would for steel rebar, and choose tie wire material based on contractor preference.
- Reinforcement placement: it's crucial to follow best practices throughout your project. This includes careful planning, construction, pouring, curing, joint cutting (for concrete applications only), and maintenance to ensure optimal performance.

Storage

To minimize the effects of prolonged exposure to direct sunlight, it is recommended to use a protective cover. This will not only help to maintain the appearance of the rebar, With IACT'S Rebar, you can consider your construction project will be built to last.

Labeling and Certifying Procedures

Upon request, production lot certificates can be provided. These certificates are traceable through bar marks that are imprinted at intervals on the bar. These marks indicate the bar diameter, stock order, and production date.

Packaging

BAR SIZE	WEIGHT PER 20-FOOT BAR (lb)	NO. OF BARS PER SUB-BUNDLE	WEIGHT PER SUB-BUNDLE (lb)	NO. OF BARS PER MASTER BUNDLE	WEIGHT PER MASTER BUNDLE (lb)	NO. OF BARS IN A FULL TRUCK LOAD (FTL)	WEIGHT PER FTL (lb/ton)
#2	0.94	50	45	500	450	46,000	42,000/21
#3	2.15	20	42	500	1,050	20,000	40,000/20
#4	3.63	10	36	500	1,800	12,000	44,000/22
#5	6.26	10	62	250	1,550	7,500	44,000/22

Stock bent bars are available on request.

IMPLEMENTED JOBS



Townhouse, USA, 2019
The townhouse located in the center of Miami is fully reinforced by composite rebar



Ready to use FRP Reinforced bored piles, Florida, USA



Jizan flood mitigation canal, Saudi Arabia, 2019



Tunneling Excavation using Soft Eye technology London, UK.



Multimedia Park Fountain Podzame, Warsaw, Poland



Replacement of Seawalls Slab, Australia

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