



Composite Fiberglass (GFRP) Rebar - Introduction

Features of Durabar™



Stronger & Lighter than steel

- 2x the tensile strength of steel
- 1/4 weight of a steel bar of same diameter



Non-corrosive, non-conductive

- Material doesn't corrode and offer high resistance to chlorides and alkali.
- Particularly suitable for environments exposed to water, salt, & humidity.
- Non-conductive. It's the perfect reinforcement solution for high voltage currents and magnetic fields.



Design optimization

- Bond strength of 10 MPa, allowing shorter lapping length.
- Can substitute steel bar of larger diameter – or increase the rebar spacing.
- Further saving on the concrete cover = less volume of concrete.



Simplified Installation

- Delivered in straight bars up to 11.8m or in coils.
- Labor required for installation reduced by 2x to 3x.

Why choose Durabar™



Stronger & lighter than steel, with 6x to 8x times less material needed than conventional steel rebars.



Material is safe & easy to handle, requiring much less labor for installation, generating both time & money saving.



Durable material, allowing to design for a longer lifetime of the structure. As no maintenance nor repair work is needed, Durabar™ generates savings during the whole project life.



Sustainable material, with significantly less energy required & CO₂ emission, both at production stage and for its transportation & installation.

About Us

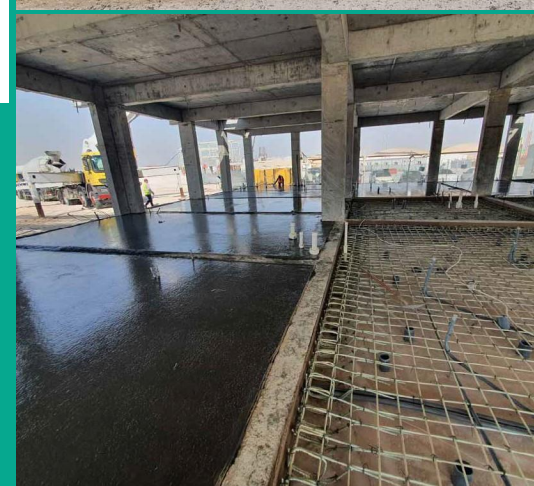
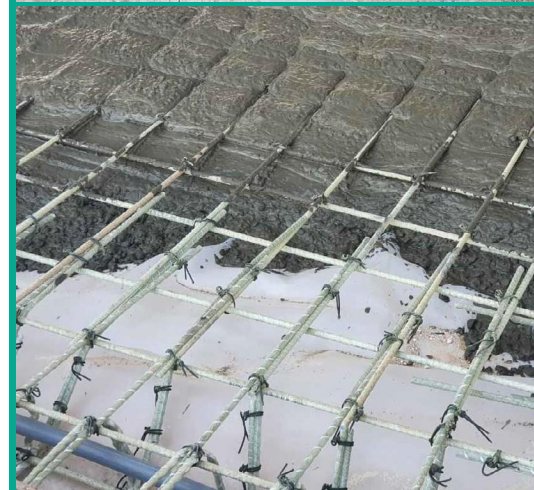
Established in 1983, Dextra is a leading manufacturer and distributor of engineered construction products for the building and civil industries.

Dextra is a leader of the composite industry for the past 25 years, manufacturing high quality FRP solutions supplied on large infrastructure projects.

The company excels in offering comprehensive solutions to its customer, with expertise in designing concrete structures reinforced with GFRP rebars.

All Durabar™ GFRP rebars are produced in Dextra ISO-9001 and ISO-1400 certified factory, following the company stringent quality assurance policy.

Ideal for Flat-work / slab on grade



Physical & Mechanical Properties							
Reference	Bar Dia.	Nominal Cross Sectional Area	Ultimate Tensile		Ultimate Tensile Strain	Modulus of Elasticity	Weight
	mm	mm ²	kN	MPa	%	GPa	kg/m
Durabar-DIY	6	32	26.00	820	1.82	45	0.08
	8	45	37.00	820	1.82	45	0.11
	10	71	53.00	750	1.67	45	0.16
	13	129	87.00	685	1.52	45	0.27
Durabar-SLIM	6	32	29.00	910	1.94	47	0.08
	8	45	41.00	910	1.94	47	0.11
	10	71	59.00	830	1.77	47	0.16
	13	129	96.00	760	1.62	47	0.27

ACI (American Concrete Institute) Design & Testing Guide

- ACI 440.1R-15 Guide for the Design and Construction of Structural Concrete Reinforced with Fiber-Reinforced Polymer (FRP) Bars
- ACI 440.3R-12 Guide Test Methods For Fiber Reinforced Polymer (FR) Composites For Reinforcing Or Strengthening Concrete And Masonry Structures
- ACI 440.5R-08 Specification for Construction with Fiber-Reinforced Polymer Reinforcing Bars

Application for Durabar™-DIY & SLIM

Slab on grade	Architectural Precast	Driveways	ICF Construction
Decorative Concrete	Residential Foundations	Sidewalks	Warehouse Floors
Agricultural Projects	Pour Back Slabs	Pool Decks	Flatwork
Basement Floors	Swimming Pools	Agricultural Slabs	
Parking Slabs	Industrial Slabs	Paving Projects	

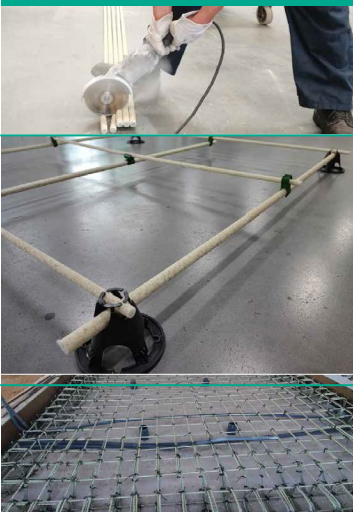
Packaging



Ref.	Bar Dia.	Straight bar				Coil				
		Unit Length	Quantity	Unit Length	Quantity	Total Coil Qty. in 20' Container	20' Container Total G.W.	Total Coil Qty. in 40' Container	40' Container Total G.W.	Length per Coil
		mm / Piece	Pieces / 20' FCL	mm / Piece	Pieces / 40' FCL		(kg)		(kg)	
Durabar DIY & SLIM	6	5,800	43,100	11,800	21,200	168	4,030	340	8,160	300
	8	5,800	31,400	11,800	15,500	168	4,070	340	8,228	220
	10	5,800	21,600	11,800	10,600	126	3,120	255	6,311	150
	13	5,800	12,800	11,800	6,300	52	1,240	106	3,023	90

* Unit Bar length can be customized upon specific request, max length for 20 ft container load =5,800mm, max length for 40 ft container load =11,800mm.
* Each large coil is divided by 4x coils from large to small, inside each coil one by one.

Handling Placement and Store



- Cutting:** Do not shear fiberglass bars. Field cut fiberglass bars using a fine blade saw, grinder, and carborundum or diamond blade. Sealing the ends of fiberglass bars is not necessary.
- Chairing:** Place chairs at a spacing that ensures adequate concrete cover.
- Tying:** Use same tying methods as for steel rebar. Tie wire material based on contractor preference.
- DURABAR™** should remain covered and protected from UV exposure until ready for use and placement.
- As with any reinforcement placement, be sure to follow best practices in all phases of your concrete project, from planning to construction, including pouring, curing, joint cutting, and maintenance for optimal performance.

Accessory	Availability for Bar Dia. (mm)			
	6	8	10	13
	✓	✓	✓	x
	✓	✓	x	✓

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