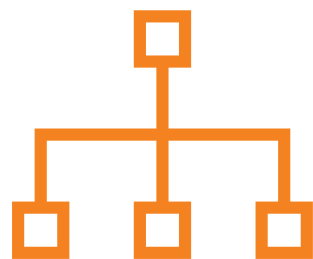




COMPOSITE REBAR PRODUCTS



True North
STRUCTURAL SYSTEMS



Fiberglass Rebar - Straight Bars

www.truenorthstructural.com



Fiberglass Rebar - Straight Bars

PRODUCT FEATURES

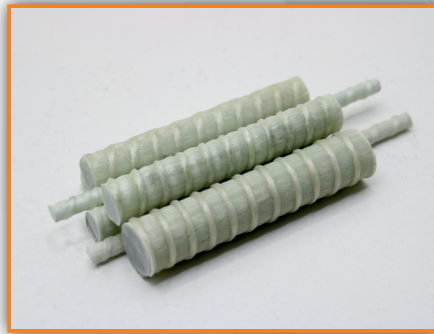
- » 100+ Years Sustainability
- » 100+ Years of Concrete Reinforcement
- » High Strength
- » High Chemical Resistance
 - Ultimate Corrosion Solution
 - Rust-Free
 - Use in High Chloride
- » Low Cost & Total Project Savings
 - Wins on Initial and Total Cost
- » Thermal Insulation
 - Low heat conductivity
- » Lightweight
 - Labor, Freight and Transport Savings
- » Zero Maintenance
- » Non-Magnetic
- » Non-Conductive

APPLICATIONS

- » Buildings
- » Dams
- » Roads & Bridges
- » Barrier Walls
- » Concrete Slabs
- » Pools & Patios
- » Piers
- » Parking Lots
- » Tunneling and Temporary Reinforcement
- » Sea Walls and Marine Applications

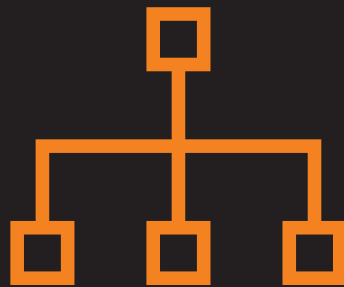
STEEL REBAR AND GFRP FIBER REINFORCED COMPOSITE REBAR DIFFERENCES						
Diameter mm	Steel Rebar A III 3600 Kg/cm ²			GFRP Fiber Reinforced Composite Rebar		
	Linear Foot Weight LBS	Lineal feet/ Per Ton	Load Capacity Kg	Linear Foot Weight LBS	Linear Foot Per Ton	Load Capacity Kg
6	0.149	14777	1.011	0.04	52654	3120
8	0.265	8307	1.826	0.07	30377	5541
10	0.414	5318	2814	0.10	21873	8649
12	0.596	3694	4058	0.17	12867	11306
14	0.811	2716	5562	0.21	10124	15395
16	1.06	2080	7241	0.28	7792	20121
18	1.34	1640	9160	0.36	6053	24186
20	1.65	1328	11327	0.49	4911	24186

STEEL REBAR	DIFFERENCES	GFRP COMPOSITE REBAR
18 MM	Equal strength at Differences in diameters	14 mm
Based on		Based on
253149 Ln/ft		253149 Ln/ft
154 .32 ton		25 ton
6 truck loads		1 truck load



Product Data Sheet: Straight Bar

	Units	#2	#3	#4	#5	#6
Nominal Diameter	mm	mm	mm	mm	mm	mm
	inch	1/4	3/8	1/2	5/8	3/4
Fiber Type	E-CR glass					
Resin Type	Vinyl ester					
Minimum Ultimate Tensile Strength	MPa	1000	1000	1000	1000	1000
	ksi	145	145	145	145	145
Minimum Modulus of Elasticity	GPa	55	55	55	55	55
	ksi	8000	8000	8000	8000	8000
Ultimate Elongation	%	2.1	2.1	2.1	2.1	2.1
Bond Strength	MPa	14	14	14	14	14
	ksi	2	2	2	2	2
Transverse Shear Strength	MPa	185	185	185	185	185
	ksi	26.8	26.8	26.8	26.8	26.8
Longitudinal Thermal Expansion Coefficient	10 ⁻⁶ /°C	8.1	8.1	8.1	8.1	8.1
	10 ⁻⁶ /°F	4.5	4.5	4.5	4.5	4.5
Transverse Thermal Expansion Coefficient	10 ⁻⁶ /°C	24.3	24.3	24.3	24.3	24.3
	10 ⁻⁶ /°F	13.5	13.5	13.5	13.5	13.5
Water Absorption	%	0.4	0.4	0.4	0.4	0.4
Linear Weight	g/m	120	152	253	434	596
	lb/ft	0.08	0.10	0.17	0.29	0.40
Effective Cross-Sectional Area	mm ²	32	72	131	201	284
	inch ²	0.049	0.111	0.203	0.311	0.440
Nominal Cross-Sectional Area	mm ²	31	71	129	199	282
	inch ²	0.048	0.110	0.199	0.308	0.437



True North

STRUCTURAL SYSTEMS



Canada Head Office

210 8399 200th St. Langley B.C.
V2Y 3C2Canada

Canada Ottawa Office

201-2487 Kaladar Ave. Ottawa
ON. K1V 8B9

USA Texas Office

226 S. Enterpize Pkwy. Corpus Christi
78405 Texas USA

www.truenorthstructural.com