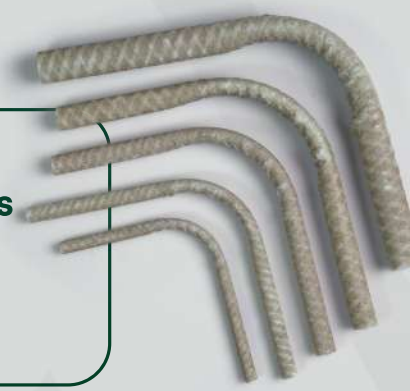
شركة قضبان بديلة للصناعة
ALTERNATIVE REBAR PLANT

Alternative Rebar Plant (ARP)

Fiberglass Rebar
60GPa Straight Bars

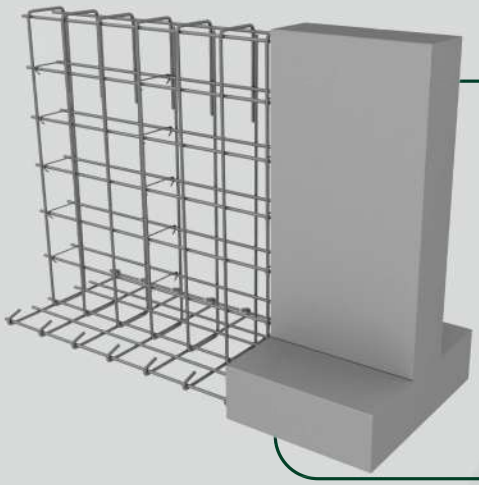
100+ Years Concrete Reinforcement

Ultimate Corrosion Solution



APPLICATIONS

- Bridge Decks and Barrier Walls
- Roads, Parking Garages and Concrete Slabs
- Power Generation and MRI
- Tunneling and Temporary Reinforcement
- Dams, Sea Walls and Marine Applications



GFRP ADVANTAGES

100+ Years Service Life
Durable and Sustainable Design
Corrosion Resistant
Maintenance-Free
1/4 The Weight of Steel
Up to 3x Tensile Strength of Steel
Non-Magnetic
Non-Conductive
Quick and Simple Installation
Low Environmental Impact

Contributes 7 LEED Credits
Bends in all sizes
Custom lengths

SAUDI MADE

ISO 9001 / ISO 14001 / ISO 45001

60 GPa
Alternative Rebar Plant (ARP)
Glass Fiber Reinforced Polymer (GFRP)

Product Data Sheet: ARP-BAR 60 Straight Bars

	Units	#3-60	#4-60	#5-60	#6-60	#7-60	#8-60
Nominal Diameter (CSA S807)	mm	10	13	15	20	22	25
	inch	3/8	1/2	5/8	3/4	7/8	1
Fiber Type		E-CR glass					
Resin Type		Vinyl ester					
Minimum Guaranteed Ultimate Tensile Strength (ASTM D7205 / CSA S806)	MPa	1200	1175	1150	1150	1100	1000
	ksi	174	170	167	167	160	145
Minimum Modulus of Elasticity (ASTM D7205 / CSA S806)	GPa	63.7	61.1	62.6	62.7	61.2	61.7
	ksi	9242	8868	9078	9091	8878	8944
Ultimate Elongation	%	2.2	2.1	2.1	2.0	1.9	1.9
Average Bond Strength (CASTM D7913)	MPa	13.7	12.7	14.6	14.1	13.6	13.5
	ksi	2.0	1.8	2.1	2.1	2.0	2.0
Transverse Shear Strength (ASTM D7617)	MPa	264.3	235.1	249.9	234.9	230.1	226.7
	ksi	38.3	34.1	36.2	34.1	33.4	32.9
Longditudinal Thermal Expansion Coefficient (ASTM E831)	10-6/°C	5.9	6.0	7.0	7.8	6.4	7.5
	10-6/°F	3.3	3.3	3.9	4.4	3.6	4.1
Transverse Thermal Expansion Coefficient (ASTM E831)	10-6/°C	21.2	20.1	22.8	23.3	25.9	25.6
	10-6/°F	11.8	11.2	12.7	12.9	14.4	14.2
Water Absorption (ASTM D570)	%	0.5	0.5	0.5	0.4	0.4	0.3
Linear Weight	g/m	195	339	526	742	990	1309
	lb/ft	0.13	0.23	0.35	0.50	0.67	0.88
Effective Cross-Sectional Area (Including Coating) (CSA S807 Annex A)	mm²	91	152	235	335	435	574
	inch²	0.141	0.236	0.364	0.519	0.674	0.890
Nominal Cross-Sectional Area (CSA S807)	mm²	71	129	199	284	387	510
	inch²	0.110	0.200	0.308	0.440	0.600	0.791

ARP-BAR 60 Straight Bars Comply with:

SASO-GSO-2488, Grade III
CSA S807, Grade III
ASTM D8505
MTO, Grade III

SAUDI MADE

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