

# FIBERGLASS FRP SELF DRILLING ROCK

Product catalogue



河北玖富工矿配件有限公司  
HEBEI JIUFU INDUSTRIAL AND MINING PARTS CO., LTD

# JIU FU Fiberglass FRP Self Drilling Rock

## • Description

Fiberglass Rebar adopt glass fiber as reinforced materials and polyester resin as basic materials, through Pulled by specific traction machine, be solidified glass fiber reinforced plastic rod body with full thread under high pressure and high temperature by preformed matched die . It is made up of fiberglass anchor rod plus resin anchoring agent, tray and nut.

Hollow Rock-Bolt is based on fully threaded hollow GFRP bar, and it works as a grouting pipe for post-injection.



Solid Rock-Bolt is a rock-bolting system based on fully threaded solid GFRP bar, and it is used for pre-grouted holes. It is used in Mining, Tunneling and Civil Engineering widely. It provides more possibilities as an alternative to metal. The GFRP Solid Bolt is manufactured with high quality GFRP material (Glassfiber Reinforced Polymer). The GFRP Solid Bolt have a high tensile load and bearing capacity with accessories, but the weight is only one quarter of metal product.

## • Application

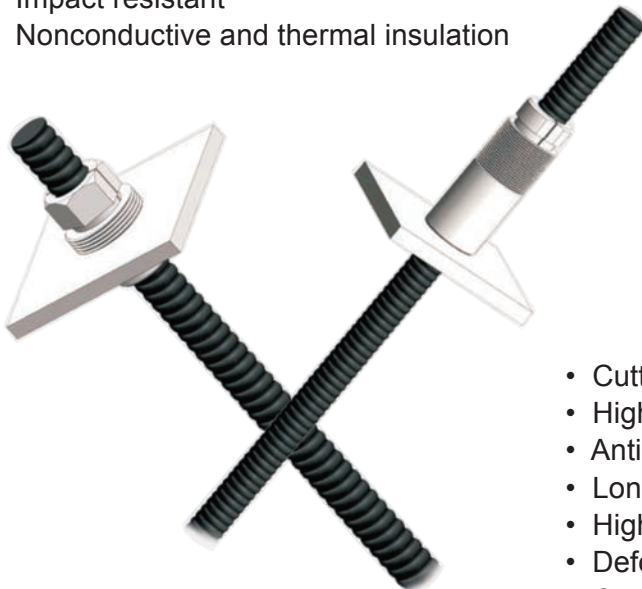
- Mining support
- Face bolting
- Soil nail
- Slope stabilization
- Permanent application
- Temporary support
- Subway tunnel
- Building construction
- Seawall damming
- Rock supporting
- Foundation pit wall
- Port of foundation pit
- Roadway support
- Tunnel construction



# JIU FU Fiberglass FRP Self Drilling Rock

## • Advantages

- All-thread (stronger bonding with the grouting material)
- Low weight (1/4 weight of steel anchor bolt)
- High durability ( unaffected by acid rain, salt water, and most chemicals)
- Strong adhesion and anchorage force
- High corrosion resistance , anti-static
- High torque resistance
- 100+ years service life
- Easy handling due to low weight
- Fire retardant
- Impact resistant
- Nonconductive and thermal insulation



- Non-magnetic electromagnetic transparency
- Dimensional stability, Bright color
- Low-maintenance

- Cuttability, easy cutting
- High torsion resistance
- Anti-static coating (optionally)
- Long service life
- High tensile load
- Deformation patterns are the same as with steel
- Coefficient of thermal expansion more similar to concrete than that of steel
- Direct production costs lower than similar steel bolt
- Strongly adapt to the environment, and no emitting the electromagnetic wave

## • FRP Rebar Other Features:

**Non-flammable:** It is non-flammable and has high thermal insulation;

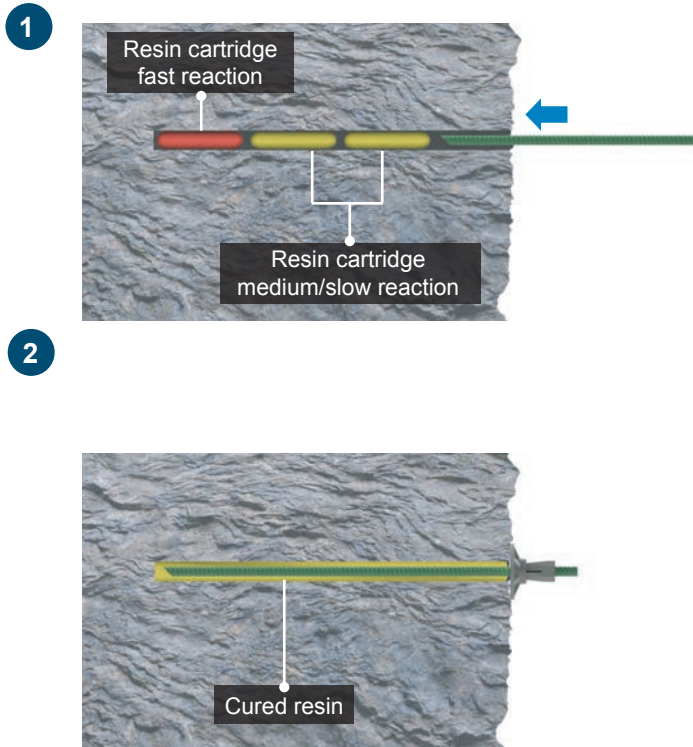
**Cuttability:** It avoids damages to cutter heads, and does not delay excavation;

**Save cost:** Use this material as reinforcing bars for road and bridge, could reduce Secondary repair cost.

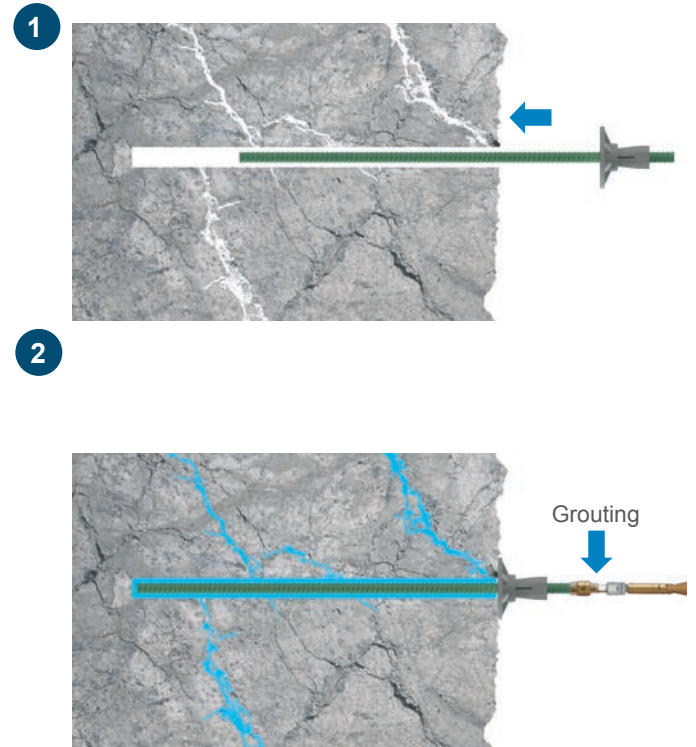


## • System diagram

GEOTEC FRP Solid Rock-Bolt



GEOTEC FRP Hollow Rock-Bolt



\* It is also suitable for pre-grouting boreholes installation.

## • Hollow grouting bolt characteristics

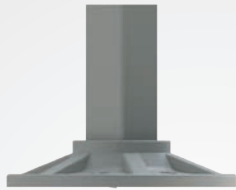
- The function of bolt and grouting pipe is combined, when grouting, it is grouting pipe, after grouting, no need to dial out to become a bolt.
- The hollow design enables the anchor rod to realize the grouting pipe function, avoids the mortar loss which the traditional construction craft pipe grouting causes.
- Grouting full, and can realize the pressure grouting, improve the quality of the project.
- Because of the role of accessories, the middle of the rod is very good, mortar can anchor the whole body wrapped, to avoid the risk of corrosion, to achieve long-term support purposes.
- Convenient installation, without on-site processing of thread, you can easily install the plate, nut.
- Combined with the special bolt grouting pump and grouting technology, it is the anchor system, which has solved many problems of traditional anchor support at home.

## • Technical information

Solid Bar									
Physical Properties				Mechanical Properties (T)			Mechanical Properties (P)		
OD	Nominal Dia.	Nominal CSA	Pitch	Temporary	Ultimate Tensile Load	Ultimate Tensile Strength	Permanent	Ultimate Tensile Load	Ultimate Tensile Strength
(mm)	(mm)	(mm <sup>2</sup> )	(mm)	Resin/ Glass	(kN)	(MPa)	Resin/ Glass	(kN)	(MPa)
20	16	200	10	PE/ECR	200	1000	VE/ECR	200	1000
22	18	250	10	PE/ECR	250	1000	VE/ECR	250	1000
25	21	350	10	PE/ECR	350	1000	VE/ECR	350	1000
32	27	580	10	PE/ECR	560	960	VE/ECR	560	960

Hollow Bar									
Physical Properties				Mechanical Properties (T)			Mechanical Properties (P)		
OD x ID	Nominal Dia.	Nominal CSA	Pitch	Temporary	Ultimate Tensile Load	Ultimate Tensile Strength	Permanent	Ultimate Tensile Load	Ultimate Tensile Strength
(mm)	(mm)	(mm <sup>2</sup> )	(mm)	Resin/ Glass	(kN)	(MPa)	Resin/ Glass	(kN)	(MPa)
25 x 12	N/A	250	10	PE/ECR	180	720	VE/ECR	220	880
28 x 12	N/A	350	10	PE/ECR	260	740	VE/ECR	320	900
32 x 15	N/A	365	10	PE/ECR	280	765	VE/ECR	350	1000
38 x 20	N/A	500	10	PE/ECR	400	800	VE/ECR	500	1000

## • Accessories

Item	Images	Usage
Domed Plate + Domed Nut		GFRP accessories for angle compensated support which allows inclination
Swivel Plate + Swivel Nut		GFRP accessories for straight 90 degree angle support
Flat Plate + Flat Nut		Steel accessories for straight 90 degree angle support

• Products

