AUSREO

Build with confidence

GFRP

THE #1 GFRP SOLUTION FOR CONCRETE REINFORCEMENT

A GREENER SOLUTION

LESS THAN 1KG PER BAR

100% CORROSION RESISTANCE

MADE IN CANADA

10mm Horizontal Bar™ Slab On Ground

10mm Horizontal Bar is the best in class GFRP (Glass Fiber Reinforced Polymer) rebar. Engineered for concrete slab on ground, 10mm Horizontal Bar is manufactured with long-lasting resin and corrosion-resistant glass to reinforce your concrete with a superior grade, reinforcement.

Quick & Simple Installation

Easy to transport and to move on site.

200+ Years Service Life

Engineered to last for generations.

Reduced Environmental Impact

GFRP rebar is manufactured in Canada using only electric power and achieves a zero emissions standard that is natural to its mode of production.

Corrosion Resistant

Impervious to corrosive affects due to coastal salt-water spray and full salt-water submersion.

Nonconductive & Nonferrous

Ideal for projects with electromagnetic sensitivity.

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Physical & Mechanical Properties

Nominal Bar Dimensions	10 mm Diameter / 5.85 m Length
Nominal Cross-Sectional Area	71 mm^2
Bar Composition	Vinyl Ester Resin & ECR Glass Fiber
Bar Profile	Integral Rib Design (No Sand-Coating Required)
Guaranteed Tensile Strength	145 ksi (1000 MPa)
Elastic Modulus	6380 ksi (45 GPa)
Transverse Shear Strength	23 ksi (160 MPa)
Guaranteed Pull-Out Capacity	2900 psi (20 MPa)

GFRP Slab On Ground design for shrinkage.

In this design the following assumptions have been used:

- Soil to have a good compaction
- Bars to be placed properly
- Control joint to be cut properly
- Expansion joint to be considered properly
- Spacing between bars to be accurate

Design Aid for Slab on Ground with GFRP

SL62	Spacing 500mm C/C	SL82	Spacing 350mm C/C
SL72	Spacing 400mm C/C	SL92	Spacing 300mm C/C

Slab Thickness	Temperature Zone	GFRP Required in each Direction
100mm	Subzero to +100° C	Mid-strip: 10mm Horizontal Bar @300mm Edge-strip: 10mm Horizontal Bar @400mm
150mm	Subzero to +100° C	Mid-strip: 10mm Horizontal Bar @300mm Edge-strip: 10mm Horizontal Bar @400mm
150mm (12 kPa loads)	Subzero to +100° C	Mid-strip: 10mm Horizontal Bar @200mm Edge-strip: 10mm Horizontal Bar @400mm -Plus 2-Bar @400 Top all along exposed joints
200mm	Subzero to +100° C	Mid-strip: 10mm Horizontal Bar @300mm -Plus 3-Bar @300 Top all along exposed joints

NOTES:

- Sawcut control joints at 4m to 5m spacing maximum, depth of sawcut shall be 25% of slab thickness.
- If you wish to use 10mm GFRP bars, you can increase the spacing accordingly based on tensile capacity of the GFRP rebar, capacity between the two is 26%, therefore spacing can be increased by 26%.
- Expansion joints shall be at maximum spacing of 15 meters.
- Mid-strip is 50% of width of panel between joints
- Edge-strip is 25% of width of panel along all joints
- All 10mm Horizontal Bar rebars are placed at mid-depth of slab unless otherwise noted
- Cover to additional top rebars shall be 30mm to 40mm minimum

Applications*

- **RESIDENTIAL DRIVEWAYS**
- **FOOTPATHS & WALKWAYS**
- **CONCRETE SLABS**
- **PAVING** · **DIY**

**Not for vertical installation.*

Handling & Installation

Always wear gloves when handling 10mm Horizontal Bar™. Direct contact to skin can cause irritation.

Use a diamond blade when site-cutting 10mm Horizontal Bar™. Do not shear the bars. If lap-slicing is necessary, use contact lap slices. Lap length should be no less than 400mm.

Tie and chair 10mm Horizontal Bar™ as you would steel rebar. Tie wire, rebar clips, and plastic zipties are acceptable methods of securing the bar. Beware of settlement of floating when using 10mm Horizontal Bar™ with high slump concrete or when vibrating.

Safety glasses and Dust masks recommended when cutting.