

# FIBERGLASS DOWEL BAR



## for load transfer between concrete slabs

Binevir Fiberglass dowel bar is a smooth round cylindrical bar without any surface treatment.

Field cutting of dowel bars is generally not necessary. However, if required use a fine blade saw, grinder, carborundum or diamond blade.

Sealing of dowel bars ends is NOT necessary.

Greasing of dowel bars is NOT necessary (the bond strength to concrete is sufficiently low.)

### TECHNICAL PROPERTIES

Diameter	Nominal cross sectional area	Unit weight/length	Longitudinal shear strength per ASTM D4475 short beam shear	Transverse shear strength per ASTM D7617 double shear	Transverse shear load
½ in 16 mm	0.307 in <sup>2</sup> 198 mm <sup>2</sup>	0.3 lbs/ft 447 g/m	7252 psi 50 MPa	23206 psi 160 MPa	7122 lbs 32 kN
¾ in 19 mm	0.442 in <sup>2</sup> 285 mm <sup>2</sup>	0.38 lbs/ft 566 g/m			10251 lbs 46 kN
1 in 25 mm	0.785 in <sup>2</sup> 507 mm <sup>2</sup>	0.65 lbs/ft 967 g/m			18237 lbs 81 kN
1 ¼ in 32 mm	1.227 in <sup>2</sup> 792 mm <sup>2</sup>	1.05 lbs/ft 1563 g/m			28488 lbs 127 kN
1 ½ in 38 mm	1.767 in <sup>2</sup> 1140 mm <sup>2</sup>	1.65 lbs/ft 2456 g/m			41005 lbs 182 kN

### Application:

Jointed concrete paving

High speed tollways

Canals and water ways

Connections to Mechanically Stabilized Earth Structures

Industrial flooring needing electromagnetic transparency

Rust free



Light weight



Lower installation cost



ECO-friendly



Easier to haul



## DOWEL & SLAB SIZES

Diameter	Concrete thickness	Dowel bar diameter inch	Distance between dowels	Dowels length	Shipping specs: basket set (2 pcs)	Shipping specs: basket set (2 pcs) with pads
¾ in 16 mm	5 in - 12.5 cm	Steel & Fiber Glass	12 in 30 cm	18 in 41 cm	Bag: 20 sets Pallet: 800 sets Full truck: 17 600 sets	Bag: 20 sets Pallet: 800 sets Full truck: 17 600 sets
¾ in 19 mm	6 in - 15 cm	Steel & Fiber Glass	12 in 30 cm	18 in 41 cm	Bag: 20 sets Pallet: 800 sets Full truck: 17 600 sets	Bag: 20 sets Pallet: 800 sets Full truck: 17 600 sets
1 in 25 mm	7 in - 17.5 cm 8 in - 20 cm	Steel & Fiber Glass	12 in 30 cm	18 in 41 cm	Bag: 20 sets Pallet: 800 sets Full truck: 17 600 sets	Bag: 16 sets Pallet: 640 sets Full truck: 14 080 sets
1 ¼ in 32 mm	9 in - 22.5 cm 10 in - 25 cm 11 in - 27.5 cm	Steel & Fiber Glass	12 in 30 cm	18 in 41 cm	Bag: 16 sets Pallet: 640 sets Full truck: 14 080 sets	Bag: 14 sets Pallet: 520 sets Full truck: 11 440 sets
1 ½ in 38 mm	9 in - 22.5 cm 10 in - 25 cm 11 in - 27.5 cm	Fiber Glass	12 in 30 cm	18 in 41 cm	Bag: 14 sets Pallet: 520 sets Full truck: 11 440 sets	Bag: 11 sets Pallet: 440 sets Full truck: 9 680 sets

## WHY BINEVIR FIBERGLASS DOWEL BAR?

- Impervious to chloride ion and chemical attack
- Light weight - one-fourth to one-fifth the weight of steel reinforcing bar
- Transparent to magnetic fields, radio frequencies
- Thermally and electrically nonconductive
- High fatigue endurance
- Easily “consumed” by excavation equipment when used in temporary structures
- In corrosive environment, service life much greater than that of steel
- Better field handling damage tolerance than epoxy coated steel and no touch-ups required

## WHAT IS FIBERGLASS?

### GLASS FIBER REINFORCED POLYMER - GFRP

Glass fibers provide high strength, while the polymer transfers the load from filament to filament, and protects the fibers from chemical attack.

