

INSTALLATION GUIDE



FIBERDOWEL™

CORROSION PROOF REINFORCEMENT

eliminates

vertical lift



The FiberDowel's function is to prevent vertical movement and corrosion between adjacent slabs while permitting the slab to move horizontally.



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STATE PROJECT SPECIFICATIONS FOR DOWEL BARS IN CONCRETE REQUIRE NO METALLIC OBJECTS BE ALLOWED

FiberDowel™ bars are the solution to the corrosion problem caused by steel dowel bars. Being made of fiberglass, it is impervious to the corrosive effects of salt, water, and other elements. In addition, the material composition of FiberDowel™ makes it an electrical and thermal insulator; and being electromagnetically transparent is a valuable attribute in all applications.



EXAMPLE OF 12" ON CENTER - ALTERNATING SPACING

FIBER DOWEL COMPONENTS



Two dowels per 30" of basket rail in every other assembly unit. Start 9" from the end of the rail with 12" O.C.



Three dowels per 30" assembly unit. Start 3" from the end of the rail with 12" O.C. Connect both baskets together



*Industrial Strength
FiberDowels*



ABS Basket Rail



PVC Plastic Spacer



*Industrial Strength
Cable/Zipties*



ABS Plastic Holddown Stakes



FIBERDOWEL™ SYSTEM INSTALLATION GUIDE

In the construction of concrete slabs, expansion or contraction joints are purposely positioned in the slab where cracks or movement of the slab will occur. A dowel bar's primary function is to restrain vertical movement between adjacent slabs while permitting the slab to move horizontally.



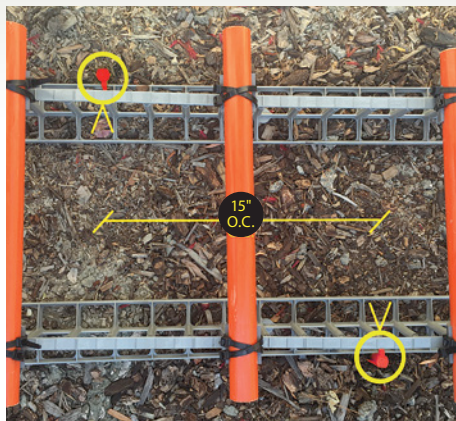
- 1) FiberDowels are attached to our ABS Basket System using plastic industrial strength cable/zipties.



- 2) Crisscross the cable/zipties when securing the dowel. Make sure they are not twisted and they are laying flat against the dowel and basket assembly.



- 3) Hammer RJD's ABS Stakes on the outside of the basket rail. Place each stake 7-1/2" off each end of the 30" rails on alternating sides.



- 4) Stake the baskets to alternate sides at 15" (O.C.)

IMPORTANT

Do NOT shear FiberDowel™ when field cutting.

If it's necessary to cut in the field use a fine tooth carbide saw blade, or a grinder with a carborundum or diamond blade.

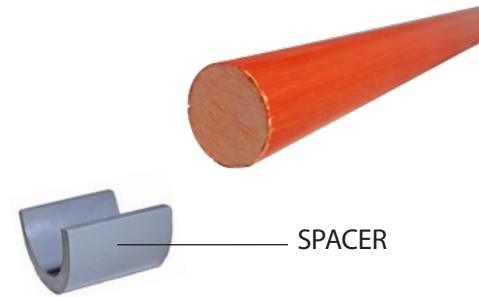
Sealing the ends of FiberDowel™ is not needed which saves in labor costs.

NOTE: FiberDowel™ devices are delivered to the jobsite either as individual fiberglass dowels or pre-assembled onto RJD's FiberDowel ABS Baskets.



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WHEN AN ADDITIONAL 1/4" HEIGHT IS REQUIRED FOR A 12" SLAB



PVC Pipe x 2" Length

- 1) Cut a piece of PVC pipe into 2" linear lengths and slice them in half using a hacksaw.



- 2) The resulting pieces are then placed under the FiberDowel™ before strapping them down.



- 3) Strap the FiberDowel™ and spacer onto the basket; using plastic industrial strength cable/zipties.

SPECIFICATIONS WHICH FIBERDOWEL MEETS OR HAS BEEN TESTED

Specification	Description	MIT
ASTM - A615	Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.	T
ASTM - A663	Standard Specification for Steel Bars, Carbon Merchant Quality Mechanical Properties	M
ASTM - A775	Standard Specifications for Epoxy-Coated Reinforcing Steel Bars	M
ASTM - D3916	Standard Test Method of Tensile Properties of Pultruded Glass-Fiber-Reinforced Plastic Rod	T
ASTM -03963	Standard Test Specification for Fabrication and Jobsite Handling of Epoxy-Coated Reinforcing Steel Bars	M
AASHTO - M31 (ASTM A615)	Deformed and Plain Billet - Steel Bars for Concrete Reinforcement	T
AASHTO - M284 (ASTM 03963)	Epoxy Coated Reinforcing Bars	M
ASTM - T253	Coated Dowel Bars	M
ACI - 325 9R-91	Guide For Construction Of Concrete Pavements And Concrete Bases	
FWHA - DTRS-57 91-C-0018	Study and Evaluation of Fiber Composite Dowel Bar for use in Highways	M

TYPICAL PROPERTIES

Thickness Construction	1/8 inch (3.2 mm) Casting	Not Applicable
Flexural Strength ASTM D790	18,500 psi	128 MPa
Flexural Modulus ASTM D790	5.4 x 10 ⁵ psi	3,724 MPa
Tensile Strength ASTM D638	9,500 psi	65 MPa
Tensile Modulus ASTM D638	5.5 x 10 ⁵ psi	3,793 MPa
Tensile Elongation ASTM D638	1.8%	1.8%
Barcol Hardness 934-1 gauge, ASTM 2583	40	40
Heat Distortion Temperature. ASTM D648	210°F	98°C

The gel time and reactivity will vary due to the type and concentration of Free Radical Initiator (catalyst), shop temperature, humidity, and type of fillers used. In order to meet your individual needs consult our technical sales representative for assistance.
Rod and Bar stock contain longitudinal reinforcement only).

PROPERTY COUPON VALUES	ASTM Test	Units	Test Results
Mechanical			
Tensile Strength (LW)	D638	psi	100,000
Tensile Modulus (LW)	D638	10 ⁶ psi	6.0
Compressive Strength (LW)	D695	psi	60,000
Flexural Strength (LW)	D790	psi	100,000
Flexural Modulus (LW)	D790	10 ⁶ psi	6.0
Notched Izod Impact (LW)	D256	ft. lbs./in.	40
Physical			
Barcol Hardness Units	D2583		50
Water Absorption	D570	% Max	.25
Density	D792	lbs./in ³	0.073-0.076
Coefficient of Thermal Expansion (LW)	D696	106 in/in/°F	3.0

LW – lengthwise

scan for a distributor



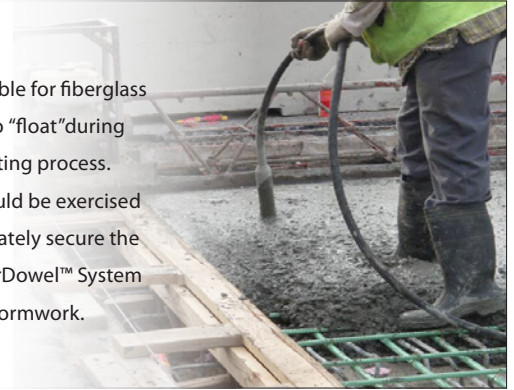
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Technical questions: Info@rjdindustries.com



NOTE:

It is possible for fiberglass dowels to “float” during the vibrating process. Care should be exercised to adequately secure the RJD FiberDowel™ System into the formwork.



This supplement to the general line catalog, developed for the RJD FiberDowel™ corrosion-proof transverse-joint restraint system, is intended to respond to detailed technical inquiries from various engineering concerns, regarding the performance of the bar portion of the FiberDowel™ system. For FiberDowel™ commercial, installation, and accessories information, this data should be reviewed in conjunction with the general line catalog for the system.

All information contained herein, especially as related to technical aspects, such as test data, is considered to be “Proprietary Information.” Any type of copying, or use of this information for other than review and/or approval for use of the FiberDowel system, without the express written consent of RJD Industries, will be considered in violation of patent, commercial and manufacturing rights retained by RJD Industries.

SuperTie™ Systems are sold exclusively through quality construction materials dealers. Scan the QR code to see our distributor locations or just call us for the name of the dealer nearest you.