



CONCRETE ACCESSORIES JOINT DOWELING SYSTEMS

BUILDING TRUST



Sika® Speed Dowel®

Concrete Doweling System for Slabs-On-Ground



Sika® Speed Dowel® is the pioneering slip dowel installation system that ensures proper dowel alignment for positive load transfer in slab-on-ground concrete joints.

Sika® Speed Dowel® has revolutionized how the concrete industry designs and constructs joints for superior performance, while slashing the time and cost required for conventional slip dowel installations.

Field-tested for over 20 years, Speed Dowel® is the choice for round dowel installations, such as:

- Warehouse / Distribution Centers
- Big Box Stores
- Manufacturing Facilities
- Commercial / Industrial Complexes
- Entertainment Centers
- Recreational Complexes
- Parking Facilities
- Airports

Sika® Speed Dowel® FOR CONSTRUCTION JOINTS

Sika® Speed Dowel® provides a practical dowel alignment method for transferring loads across, and managing stresses within, concrete slab-on-ground joints, while facilitating the following recommendations of the American Concrete Institute.



“In areas subjected to wheeled traffic, heavy loads, or both, joints with load transfer devices are recommended. When positive load transfer is required, provisions should be made along the bulkhead to ensure proper alignment of the load-transfer device during construction and finishing operations.”

ACI 360R-10 6.1.2

“For dowels to be effective, they should be smooth, aligned, and supported so they will remain parallel in both the horizontal and the vertical planes during the placing and finishing operation. All dowels should be sawn and not sheared. Properly aligned, smooth dowels allow the joint to open as concrete shrinks.”

ACI 302.1R-04 3.2.7

“Dowels across pavement joints can provide load transfer while permitting the joints to move. When dowels are used, their correct alignment and lubrication is essential for proper joint function.”

ACI 330R-08 3.8.2

“The dowels should be centered on the joint. To permit horizontal movement, the dowels must not bond to the concrete on at least one side of the joint.”

ACI 224.3R095 (Reapproved 2008) 5.2.4.3



American Concrete Institute®
Advancing concrete knowledge

TIME-SAVING 3 STEP INSTALLATION

Easy as 1-2-3 Dowel Bar Installation
Method with Sika® Speed Dowel®

vs.

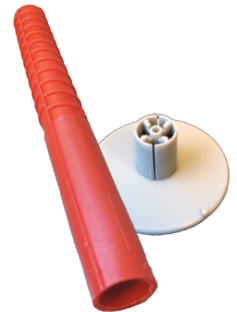
Dowel Bar Installation Using
Traditional Method

- 1** Attach Speed Dowel base to form and tap sleeve onto the base
- 2** Place first concrete pour
- 3** Strip form and insert ungreased dowel into the Speed Dowel sleeve

- 1** Drill dowel holes in lumber (edge form)
- 2** Insert dowel into edge form
- 3** Grease half of the dowel
- 4** Make first concrete placement
- 5** Hand align every dowel
- 6** Rotate dowel to loosen bond
- 7** Remove dowel
- 8** Strip edge form
- 9** Reinsert dowel into oversized cavity
- 10** Realign dowels as needed

Sika® Speed Dowel® FOR ROUND DOWELS

SLEEVE DESCRIPTION	ROUND DOWEL SIZE	SLEEVE LENGTH	CORRESPONDING BASE
PSD09/#4TX	5/8" Smooth or #4 Rebar X 18"	9"	PSD/#4BX
PSD12/#4TX	5/8" Smooth or #4 Rebar X 24"	12"	
PSD09/#5TX	3/4" Smooth or #5 Rebar X 18"	9"	PSD/#5BX
PSD12/#5TX	3/4" Smooth or #5 Rebar X 24"	12"	
PSD09/#6TX	7/8" Smooth or #6 Rebar X 18"	9"	PSD/#6BX
PSD12/#6TX	7/8" Smooth or #6 Rebar X 24"	12"	
PSD09/#7TX	1" Smooth or #7 Rebar X 18"	9"	PSD/#7BX
PSD12/#7TX	1" Smooth or #7 Rebar X 24"	12"	
PSD09/#9TX	1 1/4" Smooth or #9 Rebar X 18"	9"	PSD/#9BX
PSD12/#9TX	1 1/4" Smooth or #9 Rebar X 24"	12"	
PSD10/#11TX	1 1/2" Smooth or #11 Rebar X 20"	10"	PSD/#11BX
*Consult a Sika Technical Sales Representative for your specific project needs or if using with epoxy coated dowels.			



Sika® Speed Load™ FOR EXPANSION JOINTS



Sika Speed Load™ is a single component dowel sleeve for use in expansion joints. Sika Speed Load™ passes through pre-drilled expansion boards and has a self-locking design to securely position and align round dowels for positive load transfer. Sika Speed Load™ is featured above with our Polypropylene Expansion Board.

DESCRIPTION	ROUND DOWEL SIZE	SLEEVE LENGTH
PSD1/2X5LT	1/2" X 10" Smooth Dowel	5"
PSD1/2X9LT	1/2" X 18" Smooth Dowel	9"
PSD3/4X5LT	3/4" X 10" Smooth Dowel	5"
PSD3/4X9LT	3/4" X 18" Smooth Dowel	9"
PSD3/4X12LT	3/4" X 24" Smooth Dowel	12"
PSD1X9LT	1" X 18" Smooth Dowel	9"
PSD125X9LT	1 1/4" X 18" Smooth Dowel	9"

PHYSICAL PROPERTIES, CHARACTERISTICS, & SPECIFICATIONS

Suggested Proprietary Short Form Guide
Specification Section 03252

Provide Speed Dowel® System to accept
___ diameter x ___ long slip dowels (fill in appropriate slip dowel
dimensions) by Sika St. Louis:

3400 Tree Court Industrial Blvd.
St. Louis, MO 63122
Phone: 1-800-325-9504

CSI Format, Three Part Specifications, and technical information is
available at the number above.

Material Composition	100% polypropylene
Compressibility ASTM D695	5500-8000 psi
Thickness (Nominal)	
Speed Dowel Sleeve	0.125"
Speed Load Sleeve†	0.075"
Density	0.88-0.92 g/cc
Fatigue Resistance	Excellent
Impact/Stiffness Balance	Excellent

Sika® Speed Dowel Plus® FOR ROUND DOWELS PLUS LATERAL MOVEMENT

SUPERIOR PERFORMANCE, LOWER COST

- Sika Speed Dowel Plus is a round dowel installation system that ensures proper dowel alignment for positive load transfer in slab-on-ground concrete joints.
- Integral, patented sleeve and fins eliminates lateral restraint between concrete sections.
- A doweling method in accordance with:
 - ACI 302 Guide for Concrete Floor and Slab Construction.
 - ACI 330 Guide for the Design & Construction of Concrete Parking Lots.
 - ACI 360 Design of Slabs-on-Ground.
- One-piece design with alignment marks and preinstalled nails makes installation quick and easy.
- Ensures proper dowel alignment at a construction joint.
- Save Labor:
 - No form drilling required.
 - No greasing, spinning, removing, or replacing of dowels.
- Save money:
 - Locally source round dowels reducing freight costs vs. traditional plate doweling systems.
- Patents: US20160222600A1, US9546456B2.



Sika's Speed Dowel Plus system provides the additional capability of lateral movement to standard round dowel systems, similar to capabilities of traditional plate dowel systems. The spacing chart below is conservative and is based on spacing recommendations in accordance with ACI 360R-10. For best performance, smooth dowels are recommended.

SLEEVE COLOR	SLAB DEPTH	Speed Dowel Plus DOWEL DIMENSIONS	ROUND DOWEL SPACING
Red	5"-6"	¾" x 14" Smooth Dowel	12"
Yellow	7"-8"	1" x 14" Smooth Dowel	12"
Green	9"-11"	1-1/4" x 16" Smooth Dowel	12"

Sika® Speed Plate® PLATE DOWEL SYSTEM

SUPERIOR PERFORMANCE, LOWER COST

- Larger steel plates provide greater overall surface area to reduce bearing stresses on concrete
- Non-Tapered plate profile ensures consistent bearing stresses at joint face and full depth of dowel
- Engineered to provide optimal use of steel
- Integral, patented sleeve insert eliminates lateral restraint between concrete sections
- A doweling method in accordance with
 - ACI 302 Guide for Concrete Floor and Slab Construction
 - ACI 330 Guide for the Design & Construction of Concrete Parking Lots
 - ACI 360 Design of Slabs-on-Ground
- One-Piece Design with alignment marks and preinstalled nails makes installation quick and easy
- Ensures proper dowel alignment at a construction joint
- Save labor
 - No form drilling required
 - No greasing, spinning, removing, or replacing of dowels
- Patent #7967527



*Steel Plates included.

Sika's Speed Plate® system reduces the number of dowels required when compared with conventional doweling systems. Speed Plate® allows the installer to increase the center distance between dowels, further reducing labor and material costs. The spacing chart below is conservative and is based on spacing recommendations in accordance with ACI 360R-10.

SLEEVE COLOR	SLAB DEPTH	Speed Plate® DOWEL DIMENSIONS	PLATE DOWEL ON CENTER SPACING
Red	5" - 6"	1/4" thick X 4" wide X 6" long	18"
Yellow	7" - 8"	3/8" thick X 4" wide X 6" long	18"
Green	9" - 11"	3/4" thick X 4" wide X 6" long	18"
Note: Values are based on a maximum joint opening of 0.20"			

SIKA FULL RANGE SOLUTIONS FOR CONSTRUCTION:



WATERPROOFING



CONCRETE



REFURBISHMENT



SEALING AND BONDING



FLOORING



ROOFING

All sales of Sika products are subject to Sika's current Terms and Conditions of Sale available at usa.sika.com or by calling 800-325-9504. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet, which are available at usa.sika.com or by calling Technical Services at 800-325-9504. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

The sale of all Sika products are subject to the following Limited Warranty:

LIMITED MATERIAL WARRANTY

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

Contact Sika:

Phone: 1-800-325-9504

Website: usa.sika.com

Our most current General Sales Conditions shall apply.

Please consult the Product Data Sheets prior to any use and processing.

Sika Corporation

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