**STEP-BY-STEP SYSTEM INSTALLATION PROCEDURE**

**STEP 1:**
Hand bearing plate with 2 bolts on flat. Place SDI grommet port in 11 o'clock or 12 o'clock position.

**STEP 2:**
Place O-ring in spiral corrugation of trumpet. (See note a)

**STEP 3:**
Turn trumpet into bearing plate and ensure grommet port holes line up. Use strap wrench if necessary.

**STEP 4:**
Hand spring, 3" behind bearing plate. Ensure spiral is concentric and parallel to path of tendon.

**STEP 5:**
Connect pipe to trumpet.
1. Using slip coupler for connection.
2. Install correct size and length of heat shrink per manufacturer's recommendations.

**STEP 6:**
Place O-ring seal.
1. Place O-ring seal in correct size and length per manufacturer's recommendations.

**STEP 7:**
Perform vacuum test per foot 489.2.3.5

**STEP 8:**
Install strainer, leave sufficient strand for stressing equipment.

**STEP 9:**
Place anchor head: ensure anchor head wedge cavity is rust free and clean prior to wedge installation.

**STEP 10:**
Align anchor head so that tapped hole is in 1 o'clock position. Avoid crossing strands.

**STEP 11:**
Push wedge over strand and against into the anchor head wedge cavity using a 1" fire.

**STEP 12:**
Install permanent cap by torquing bolts in a star pattern to 30 ft. lbs. (see note x)

**STEP 13:**
Perform pressure test per foot 489.2.3.5

**STEP 14:**
Install temporary grommet injection hardware.

**STEP 15:**
Inject wax per grommet injection procedure.

**STEP 16:**
Remove all temporary hardware once grommet procedure is complete and cap or plug ports per drawings.

**NOTES:**
A. Lubricate all O-rings for ease of installation.
B. epoxy is to be used on every permanent grommet hose/coupler/plug threads. Teflon tape is to be used on every temporary grommet hose/coupler/plug threads. Thread into all connections do not inject through vents.
C. Vents shown for reference only. See placing drawings. Vent can be oriented to act as drain.
D. See segment coupler installation plan for parts and assembly information.
E. Follow but fusion procedure for all but, joints per manufacturer's installation procedure.
F. reference foot standard plans 489.2 for post-tensioning anchorage and tendon filling detail.
G. tendon filler material is grommet. Any tendons without precast segment joints. Segment couplers shall be omitted.
SDI 19.6 ANCHOR HEAD
PART NO.: 71008
MATERIAL: ASTM A 536 GR. 80-55-06
MATERIAL MEETS ALL SPECIFICATIONS,
SCALE: 3" = 1'-0"
SDI 19.6-PC1 BEARING PLATE

PART NO.: 72012
MATERIAL: ASTM A 538 GR. 80-55-08 (GALVANIZED)
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 3" = 1'-0"

(2) 3/8" Dia. Holes
ON A 1132" B.C.

COIL THREAD FOR
21mm GROUT TUBE

938" [240]
638" [162]
638" [167]
13/16" [368]
3" [76]
### STANDARD O-RINGS

**Material:** Buna-N  
**Material Meets All Specifications.**

#### Standard O-Rings

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SDI 19.6 TRUMPET
PART NO.: 73004
MATERIAL: HDPE
MATERIAL MEETS ALL SPECIFICATIONS,
SCALE: 3" = 1'-0"
SDI 19.6-PC1 SPIRAL

PART NO.: 74014
MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615
#4 REBAR - 17" O.D.
4.5 TURNS AT 4" PITCH
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDE
BURSTING STEEL REQUIREMENTS OF THIS SHEET

THE FIRST 1 1/2 TURNS AT THE
BEARING PLATE SIDE OF SPIRAL
TO ACHIEVE FULL DEVELOPMENT

SDI 19.6-PC1 SPIRAL PART NO.: 74014
MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615
#4 REBAR - 17" O.D.
4.5 TURNS AT 4" PITCH
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDE
BURSTING STEEL REQUIREMENTS OF THIS SHEET

SDI 19.6-PC1 SPIRAL
MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615
#4 REBAR - 17" O.D.
4.5 TURNS AT 4" PITCH
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDE
BURSTING STEEL REQUIREMENTS OF THIS SHEET

SDI 19.6-PC1 SPIRAL
MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615
#4 REBAR - 17" O.D.
4.5 TURNS AT 4" PITCH
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDE
BURSTING STEEL REQUIREMENTS OF THIS SHEET

SDI 19.6-PC1 SPIRAL
MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615
#4 REBAR - 17" O.D.
4.5 TURNS AT 4" PITCH
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDE
BURSTING STEEL REQUIREMENTS OF THIS SHEET

SDI 19.6-PC1 SPIRAL
MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615
#4 REBAR - 17" O.D.
4.5 TURNS AT 4" PITCH
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDE
BURSTING STEEL REQUIREMENTS OF THIS SHEET

SDI 19.6-PC1 SPIRAL
MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615
#4 REBAR - 17" O.D.
4.5 TURNS AT 4" PITCH
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDE
BURSTING STEEL REQUIREMENTS OF THIS SHEET

SDI 19.6-PC1 SPIRAL
MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615
#4 REBAR - 17" O.D.
4.5 TURNS AT 4" PITCH
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDE
BURSTING STEEL REQUIREMENTS OF THIS SHEET
SDI 19.6-PC PERMANENT GROUT CAP

PART NO.: 75003
MATERIAL: NYLON 6, 30% GLASS FILLED
MATERIAL MEETS ALL SPECIFICATIONS,
SCALE: 3" = 1'-0"

13MM GROUT HOSE THREAD
(SIDE PORT)

13MM GROUT HOSE THREAD
(TOP PORT)

(3) HOLES FOR 
1/8", 14 BOLTS

SDI
19.6-PC

SCHWAGER DAVIS, INC.
DESIGN-BUILD CONTRACTOR
196 HILLSDALE AVENUE
SAN JOSE, CA 95136
PHONE: 408.281.9300
FAX: 408.281.9301
www.schwagerdavis.com

DRAWING No.: SDI-HD-057

TH1
TH1
MSC
MSC
05/28/15
7/16"-14 BOLT & WASHER

PART NO.: 77055 - SDI 19.6-PC PERMANENT CAP BOLTS

MATERIAL: STAINLESS STEEL, TYPE 316 ACCORDING TO ASTM F593

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

WASHER MAY VARY FROM 0.055" TO 0.069" IN THICKNESS.
0.6" BARE STRAND

PART NO: 21001
MATERIAL: 270 KSI LOW RELAXATION STEEL ACCORDING TO ASTM A416
MATERIAL MEETS ALL SPECIFICATIONS,
SCALE: 1'-0" = 1'-0"

LENGTH VARIES
SDI 0.6" WEDGE (2-PART)

PART NO.: 81001
MATERIAL: AISI 11L17 OR 12L14
MATERIAL MEETS ALL SPECIFICATIONS.
PART IDENTIFICATION MARKED ON CONTAINER
SCALE: 1'-0" = 1'-0"

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SDI 4" CORRUGATED PLASTIC DUCT

PART NO.: 32005
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
BENDING RADIUS: 15 FT
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

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SDI 4" CORRUGATED PLASTIC DUCT

SDI 4" CORRUGATED PLASTIC DUCT

SDI 4" CORRUGATED PLASTIC DUCT

SDI 4" CORRUGATED PLASTIC DUCT

SDI 4" CORRUGATED PLASTIC DUCT
SDI 4" SNAP-ON DUCT COUPLER
PART NO.: 33205
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

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SDI 4.0 33005

SDI 4" SLIP-ON DUCT COUPLER
PART NO.: 33005
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"
HEAT SHRINK TUBING (PLA-115-YE)

PART NO.: 37005
MATERIAL: POLYOLEFIN
TUBULAR SLEEVE DIAMETER: 5.50" [140mm] AS SUPPLIED
3.80" [97mm] FULLY RECOVERED
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

SCHWAGER DAVIS, INC.
DESIGN-BUILD CONTRACTOR
198 HILSDALE AVENUE
SAN JOSE, CA 95136
PHONE: 408.281.9300
FAX: 408.281.9301
www.schwagerdavis.com

SDI-HD-186 DRAWING No.

DATE
RELEASE
MHA MSC MSC 04/04/14
UPDATE
CSM MSC MSC 05/26/15
UPDATE
JSA MSC MSC 06/26/18

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**CanusaTube™ - PLA**

Tubular sleeve for pipeline corrosion protection

### Product Description

Canusa Tubes™ are shipped with an inner release liner for protection from contamination.

### Storage & Safety Guidelines

To ensure maximum performance, store Canusa products in a dry, ventilated area. Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage at temperatures above 35°C (95°F) or below -20°C (-4°F). Product installation should be done in accordance with local health and safety regulations.

These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications.

### Surface Preparation

- Before welding together the carrier pipe, slide the Canusa Tube sleeve at least 1 m away from the cutback area of the joint.
- Wipe clean or air blast the steel and pipe coating to remove foreign contaminants.
- Ensure that the PE coating edges are beveled to 30°.
- Ensure that there is no dirt or moisture inside the tube and that the tube is not cut. If the sleeve is not usable, a one-piece Wrapid Sleeve or Canusa Wrap sleeve should be used.

### Sleeve Installation

- Pre-heat the joint area to a minimum of 60°C (140°F). Using a temperature measuring device, ensure the correct temperature is reached on the steel and at least 50mm (2”) on each side of the sleeve.
- Completely remove the inner release liner from the sleeve and centre the sleeve over the area to be sealed.

### Equipment List

- Propane tank, hose, torch & regulator
- Appropriate tools for surface abrasion
- Knife, roller, rags & approved solvent cleanser
- Digital thermometer with suitable probe
- Standard safety equipment; gloves, goggles, hard hat, etc.

### Flame Intensity & Torch Size

- Use moderate flame intensity for pre-heating and shrinking.
- Minimum Torch Size: 150,000 BTU/hr.
CanusaTube™ - PLA

Sleeve Installation

- Visual inspection: 
  • Sleeve is in full contact with the steel joint.
  • Adhesive flows beyond both sleeve edges.
  • No cracks or holes in sleeve backing.

- Shrinking has been completed when the adhesive begins to ooze at the sleeve edges all around the circumference. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.

- While the sleeve is still hot and soft, use a hand roller to firmly roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. If necessary, reheat to roll out air.

Inspection

- Continue heating from the centre toward one end of the sleeve until recovery is complete. In a similar manner, heat and shrink the remaining side. With a yellow backing, a pink-orange shade will appear when the proper temperature has been reached.

- Shrinking has been completed when the adhesive begins to ooze at the sleeve edges all around the circumference. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.

- While the sleeve is still hot and soft, use a hand roller to firmly roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. If necessary, reheat to roll out air.

Backfilling Guidelines

- Continue heating from the centre toward one end of the sleeve until recovery is complete. In a similar manner, heat and shrink the remaining side. With a yellow backing, a pink-orange shade will appear when the proper temperature has been reached.

- During heating, the adhesive begins to ooze at the sleeve edges all around the circumference. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.

- While the sleeve is still hot and soft, use a hand roller to firmly roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. If necessary, reheat to roll out air.

- After shrinking is complete, allow the sleeve to cool for 2 hours prior to lowering and backfilling. To prevent damage to the sleeve, use selected backfill material, (no sharp stones or large particles) otherwise an extruded polyethylene mesh or other suitable shield should be used.

Canusa warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the installation guide when used in compliance with Canusa’s written instructions. Since many installation factors are beyond our control, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection therewith. Canusa’s liability is stated in the standard terms and conditions of sale. Canusa makes no other warranty, either expressed or implied. All information contained in this installation guide is to be used as a guide and is subject to change without notice. This installation guide supersedes all previous installation guides on this product.
SDI 4" SEGMENT COUPLER SLIDE HOUSING

PART NO.: 33109
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
MATERIAL MEETS ALL PROJECT SPECIFICATIONS.
SCALE: 6" = 1'-0"

SDI 4" SEGMENT COUPLER SLIDE HOUSING

SCHWAGER DAVIS, INC.
DESIGN-BUILD CONTRACTOR
198 HILLSDALE AVENUE
SAN JOSE, CA 95136
PHONE: 408.281.9300
FAX: 408.281.9301
www.schwagerdavis.com

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2  UPDATE  CSM  MSC  MSC  04/26/15
3  UPDATE  JSA  MSC  MSC  06/26/18

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SDI 4" SEGMENT COUPLER SEAL

PART NO.: 33111
MATERIAL: BUNA-N PER ASTM D2240, & D412
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

SDI 4" SEGMENT COUPLER SEAL

PART NO.: 33111
MATERIAL: BUNA-N PER ASTM D2240, & D412
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

SDI 4" SEGMENT COUPLER SEAL

PART NO.: 33111
MATERIAL: BUNA-N PER ASTM D2240, & D412
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

SDI 4" SEGMENT COUPLER SEAL

PART NO.: 33111
MATERIAL: BUNA-N PER ASTM D2240, & D412
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"
SDI 4" SEGMENT COUPLER WELDED HOUSING

PART NO.: 33108
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B4451 TO PP0340B67884
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

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SDI 4.0 33108
1/2" DIAMETER BALL VALVE (TEMPORARY)

PART NO.: 52008
MATERIAL: PVC
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

1/2" DIAMETER BALL VALVE (TEMPORARY)
SCHWAGER DAVIS, INC.
DESIGN-BUILD CONTRACTOR
198 HILLSDALE AVENUE
SAN JOSE, CA 95136
PHONE: 408.281.9300
FAX: 408.281.9301
www.schwagerdavis.com

1/2" DIAMETER BALL VALVE (TEMPORARY)

SCHWAGER DAVIS, INC.
P O S T - T E N S I O N SYSTEM LIBRARY

1/2" DIAMETER BALL VALVE (TEMPORARY)

SCHWAGER DAVIS, INC.
POST-TENSION SYSTEM LIBRARY

DRAWING No: SDI-HD-153

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1/2" NOM. (13mm) NPT COUPLER

PART NO.: 53011
MATERIAL: POLYPOLYPEE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"
13mm GROUT HOSE
PART NO: 51002
MATERIAL: HDPE
MATERIAL MEETS ALL SPECIFICATIONS,
SCALE: 1:0" = 1:0"

13mm GROUT HOSE
SCHWAGER DAVIS, INC.
DESIGN-BUILD CONTRACTOR
198 HILLSDALE AVENUE
SAN JOSE, CA 95136
PHONE: 408.281.9300
FAX: 408.281.9301
www.schwagedavis.com

SCHWAGER DAVIS, INC.
POST-TENSION SYSTEM LIBRARY

DRAWING No. SDI-HD-188

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1/2" NOM. (13mm) GROUT TUBE COUPLER

PART NO.: 55008
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

SCHWAGER DAVIS, INC.
DESIGN-BUILD CONTRACTOR
198 HILLSDALE AVENUE
SAN JOSE, CA 95136
PHONE: 408.281.9300
FAX: 408.281.9301
www.schwagerdavis.com

SCHWAGER DAVIS INC.
POST-TENSION
SYSTEM LIBRARY

DRAWING No.: SDI-HD-154

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</table>
1/2" NOM. (13mm) GROUT TUBE PLUG

PART NO.: 55003
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

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1" DIAMETER BALL VALVE (TEMPORARY)

PART NO.: 52006
MATERIAL: PVC
PRESSURE RATING: 150 PSI
THREAD SIZE: 1" NPT
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

1" DIAMETER BALL VALVE (TEMPORARY)

PART NO.: 52006
MATERIAL: PVC
PRESSURE RATING: 150 PSI
THREAD SIZE: 1" NPT
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"

1" DIAMETER BALL VALVE (TEMPORARY)

PART NO.: 52006
MATERIAL: PVC
PRESSURE RATING: 150 PSI
THREAD SIZE: 1" NPT
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 6" = 1'-0"
3/4" NOM. (23mm) NPT COUPLER

PART NO.: 53005
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL PROJECT SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

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3/4" NOM. (23mm) GROUT HOSE

PART NO.: 51001
MATERIAL: HDPE
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

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3/4" NOM. (23mm) GROUT HOSE

PART NO.: 51001
MATERIAL: HDPE
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

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3/4" NOM. (23mm) GROUT HOSE

PART NO.: 51001
MATERIAL: HDPE
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

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3/4" NOM. (23mm) GROUT HOSE

PART NO.: 51001
MATERIAL: HDPE
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

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3/4" NOM. (23mm) GROUT HOSE

PART NO.: 51001
MATERIAL: HDPE
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

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SDI GROUT PORT PLUG

PART NO.: 55004
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

SDI GROUT PORT PLUG

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SDI GROUT PORT PLUG
3/4" NOM. (23mm) GROUT TUBE PLUG

PART NO.: 55001
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

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DESIGN-BUILD CONTRACTOR
198 HILLSDALE AVENUE
SAN JOSE, CA 95136
PHONE: 408.281.9300
FAX: 408.281.9301
www.schwagerdavis.com

MSC 04/02/14
MSC 05/26/15
MSC 06/19/18
PP WELDABLE GROUT PORT WITH 3/4" (23mm) GROUT THREAD

PART NO.: 57003
MATERIAL: POLYPROPYLENE
CELL CLASS: PP0340B44541 TO PP0340B67884
PRESSURE RATING: 150 PSI
MATERIAL MEETS ALL SPECIFICATIONS.
SCALE: 1'-0" = 1'-0"

MSC MSC MSC
UPDATE 1 05/26/14

MSC MSC MSC
UPDATE 2 06/20/18
**RED-i PT CABLE COATING GREASE**

RED-i PT CABLE COATING is specially formulated for the post tensioning construction industry, and exceeds the Post Tensioning Institute (PTI) specifications in corrosion protection for unbonded and single-strand tendons in corrosive service.

**Product Description:** RED-i PT CABLE COATING is a premium lithium grease fortified with effective corrosion inhibitors. The coating is specifically designed to provide extended protection against corrosion of metal cables or any metallic surface exposed to moisture.

**Features:**
- Adhesive properties protects metal surfaces from air, moisture, and sea water.
- Excellent corrosion and rust inhibition properties.
- Exceeds PTI specifications.
- Member Post Tensioning Institute.
- High dropping point.
- Contains antimicrobial agent.

**Typical Uses:**
- Preserves metallic cables and wires exposed to corrosive environments.
- Preserves steel reinforcement bars or rods used for concrete structures against corrosion.
- Recommended for use in marine and construction industries.

**Typical Specifications:**

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<td>Appearance</td>
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<td>Rust Test, ASTM D-1743</td>
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<td>Corrosion Test, ASTM B-117</td>
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<td>Soak Test, ASTM B-117 Modified</td>
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<td>Emulsification Of Coating</td>
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<td>Oil Separation, FTM 321.2, Wt.%</td>
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<td>Flash Point, ASTM D-92, C, °F</td>
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<td>cSt. @ 100° C.</td>
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<td>Tensile Strength Change Of Polymer, ASTM D638</td>
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**Values shown here are typical and may vary.**
SET  High Strength Epoxy-Tie® Anchoring Adhesive

SET Epoxy-Tie® epoxy is a two-component, 1:1 ratio, high solids, epoxy-based adhesive for use as a high strength, non-shrink anchor grouting material. Resin and hardener are dispensed and mixed simultaneously through the mixing nozzle. SET meets or exceeds the requirements of ASTM C-881 specification for Type I, II, IV and V, Grade 3, Class B and C.

USES

- Threaded-rod anchoring
- Rebar doweling
- Bonding hardened concrete to hardened concrete
- Pick-proof sealant around doors, windows and fixtures
- Paste-over for crack injection

CODE REPORTS

- ICC Evaluation Service ESR-1772 (formerly ICBO-ES ER-5279) (PDF) (CMU & URM)
- City of L.A. RR25279 (PDF)
- Caltrans approved
- Florida Statewide Product Approval FL.11506.4
- multiple DOT listings
- NSF/ANSI Standard 61 (216 in²/1000 gal) (PDF), except SET1.7KTA
- SET-PAC EZ™ adhesive covered by ICC-ES, City of L.A. and NSF/ANSI listings only

The load tables list values based upon results from the most recent testing and may not reflect those in current code reports. Where code jurisdictions apply, consult the current

LINKS:

- Supplemental Topics for Adhesive Anchors
- Estimating Guide
- Limited Warranty Information
- Tension and Shear Load Tables
- Load-Adjustment Factors
- Documents:
  - Anchor Catalog Section (PDF)
  - Product Submittal (PDF)
  - Material Safety Data Sheet: SET (PDF)
  - Material Safety Data Sheet: SET en Español (PDF)
  - SET-PAC-EZ™ Epoxy-Tie® Anchoring Adhesive Flier (PDF)
  - Rebar Yield and Tensile Strength Embedments Technical Bulletin (PDF)
  - Rebar Yield and Tensile Strength Embedments (Canada) Technical Bulletin (PDF)
  - Anchor Tension Loads in Masonry Chair Block Technical Bulletin (PDF)
  - Free Software:
    - Anchor Designer
    - Adhesive Cartridge Quantity Estimator
APPLICATION

Surfaces to receive epoxy must be clean. For installations in or through standing water, see Supplemental Topics for Adhesive Anchors for details. The base material temperature must be 40° F or above at the time of installation. For best results, material should be 70° - 80° F at the time of application. Cartridges should not be immersed in water to facilitate warming. To warm cold material, the cartridges should be stored in a warm, uniformly heated area or storage container for a sufficient time to allow epoxy to warm completely. Mixed material in nozzle can harden in 5-7 minutes at a temperature of 40° F or above.

TEST CRITERIA

Anchors installed with SET Epoxy-Tie® adhesive have been tested in accordance with ICC-ES's Acceptance Criteria for Adhesive Anchors (AC58) for the following:

- Seismic/wind loading
- Long-term creep at elevated-temperature
- Static loading at elevated-temperature
- Damp and water-filled holes
- Freeze-thaw conditions
- Critical and minimum edge distance and spacing

In addition, anchors installed with SET Epoxy-Tie® adhesive have been tested in accordance with ICC-ES's Acceptance Criteria for Unreinforced Masonry Anchors (AC60).

PROPERTY | TEST METHOD | RESULTS
--- | --- | ---
Consistency | ASTM C 881 | Non-sag/thixotropic paste
Heat deflection | ASTM D 648 | 136° F (58° C)
Bond strength (moist cure) | ASTM C 882 | 3,218 psi (2 days)
 | | 3,366 psi (14 days)
Water absorption | ASTM D 570 | 0.110% (24 hrs)
Compressive yield strength | ASTM D 695 | 5,065 psi (24 hours)
 | | 12,650 psi (7 days)
Compressive modulus | ASTM D 695 | 439,000 psi (7 days)
Get time (75° F) | ASTM C 881 | 30 min - 60 gram
 | | 60 min - thin film

ACCESSORIES / RELATED PRODUCTS

- Dispensing Tools
- Mixing Nozzles
- Plastic Anchoring Screens
- Steel Anchoring Screens
- Hole Cleaning Brushes

SUGGESTED SPECIFICATIONS

Anchoring adhesive shall be a two-component high-solids epoxy based system supplied in manufacturer's standard cartridge and dispensed through a static-mixing nozzle supplied by the manufacturer. Epoxy shall meet the minimum requirements of ASTM C-881 specification for Type I, II, IV, and V, Grade 3, Class B and C and must develop a minimum 12,650 psi compressive yield strength after 7 day cure. Epoxy must have a heat deflection temperature of a minimum 136°F (58°C). Adhesive shall be SET Epoxy-Tie® adhesive from Simpson Strong-Tie, Pleasanton, CA. Anchors shall be installed per Simpson Strong-Tie instructions for SET Epoxy-Tie® adhesive.

ASD DESIGN EXAMPLE

For design example, click here.

INSTALLATION

IMPORTANT For installation instructions, click here.

SHELF LIFE

24 months from date of manufacture in unopened side-by-side cartridge. SET-PAC EZ™ cartridge - 24 months from date of manufacture, unopened.

STORAGE CONDITIONS

For best results store between 45° F - 90° F. To store partially used cartridges, leave hardened nozzle in place. To re-use, attach new nozzle.

COLOR

Resin – white, hardener – black

When properly mixed SET adhesive will be a uniform light gray color.

CLEAN UP

Uncured material – Wipe up with cotton cloths. If desired scrub area with abrasive, water-based cleaner and flush with water. If approved, solvents such as ketones (MEK, acetone, etc.), lacquer thinner or adhesive remover can be used. DO NOT USE SOLVENTS TO CLEAN ADHESIVE FROM SKIN. Take appropriate precautions when handling flammable solvents. Solvents may damage surfaces to which they are applied. Cured material – Chip or grind off surface.

CHEMICAL RESISTANCE

simpsonanchors.com/catalog/.../set/
Very good to excellent against distilled water, inorganic acids and alkalis. Fair to good against organic acids and alkalis, and many organic solvents. Poor against ketones. For more detailed information download Technical Bulletin T-SAS-CHEMRES08 (PDF).

**SET Cartridge Systems**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Capacity (cubic inches)</th>
<th>Cartridge Type</th>
<th>Carton Quantity</th>
<th>Dispensing Tool(s)</th>
<th>Mixing Nozzle</th>
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</thead>
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<tr>
<td>SET1.7KTA</td>
<td>1.7 (3.1)</td>
<td>side-by-side</td>
<td>12</td>
<td>Adaptor included for standard caulking tool</td>
<td>EMN1.7 (2 included)</td>
</tr>
<tr>
<td>SET-PAC-EZ</td>
<td>8.5 (16.2)</td>
<td>single</td>
<td>12</td>
<td>CDT10 or high quality standard caulking tool</td>
<td>2 included</td>
</tr>
<tr>
<td>SET22</td>
<td>22 (39.7)</td>
<td>side-by-side</td>
<td>10</td>
<td>EDT22B, EDT22AP, or EDT22CKT</td>
<td>EMN22i</td>
</tr>
<tr>
<td>SET56</td>
<td>56 (101.1)</td>
<td>side-by-side</td>
<td>6</td>
<td>EDT56AP</td>
<td>EMN22i or EMN50</td>
</tr>
</tbody>
</table>

1. Bulk containers also available, contact Simpson Strong-Tie for details.
2. Cartridge and bulk estimation guides are available.
3. Detailed information on dispensing tools, mixing nozzles and other adhesive accessories is available.
4. Use only appropriate Simpson Strong-Tie mixing nozzle in accordance with Simpson’s instructions. Modification or improper use of mixing nozzle may impair epoxy performance.

**Cure Schedule**

<table>
<thead>
<tr>
<th>Base Material Temperature</th>
<th>Cure Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>°F</td>
<td>°C</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>65</td>
<td>18</td>
</tr>
<tr>
<td>85</td>
<td>29</td>
</tr>
<tr>
<td>90</td>
<td>32</td>
</tr>
</tbody>
</table>

**In-Service Temperature Sensitivity**

<table>
<thead>
<tr>
<th>Base Material Temperature</th>
<th>Percent Allowable Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>°F</td>
<td>°C</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>70</td>
<td>21</td>
</tr>
<tr>
<td>110</td>
<td>43</td>
</tr>
<tr>
<td>135</td>
<td>57</td>
</tr>
<tr>
<td>150</td>
<td>66</td>
</tr>
<tr>
<td>180</td>
<td>82</td>
</tr>
</tbody>
</table>

1. Refer to temperature sensitivity chart for allowable bond strength reduction for temperature. See Supplemental Topics for Adhesive Anchors.
2. Percent allowable load may be linearly interpolated for intermediate base material temperatures.
3. °C = (°F-32) / 1.8
Product Description

POLY-TEMP® MD Medium Density Thread Seal Tape is a general purpose PTFE Thread Seal Tape designed to be used on all types of metal and plastic pipe threads.

Our POLY-TEMP® Tapes are made from 99.9% virgin PTFE resins for optimum purity and performance. POLY-TEMP® MD Medium Density Thread Seal Tape is malleable to easily conform to thread profiles to ensure a positive seal.

Because POLY-TEMP® MD Medium Density Thread Seal Tape is composed of pure PTFE, it touts an extremely broad range of chemical compatibilities and is unaffected by most chemicals and concentrations.

POLY-TEMP® MD Medium Density Thread Seal Tape is our most popular grade of thread sealing tape and has been Industry Leader for over 30 years.

Features & Benefits

- Meets FDA and USDA requirements
- UL Listed
- Ideal for all taper thread connections
- PTFE's high lubricity makes for easy assembly
- Only 3 wraps need for most applications
- Chemically inert, non-Toxic
- Suitable for oxygen service
- Our most popular grade of Thread Seal Tape
- Easy to handle and apply
- Temperature range from -400F to 550F (-240C to 287C)
- Pressures up to 10,000psi (Liquid), 2000 psi (Gas)
- Connections can be put into service right away, no dry time
- Never dries out and an unlimited shelf life.
- Meets MIL-T-27730A
- Extremely versatile.

Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Thickness</td>
<td>3.5 mils</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.7 to 0.8g/cc</td>
</tr>
<tr>
<td>Toxicity</td>
<td>Non toxic</td>
</tr>
<tr>
<td>RoHS</td>
<td>Compliant</td>
</tr>
</tbody>
</table>

Cautions

Read all information on labels and Material Safety Data Sheets prior to use. All products should be tested and evaluated for a particular purpose prior to use.

Product Limited Warranty

This information is based on information we believe to be reliable and accurate, but no guarantee of its accuracy is made for a particular application. We urge and recommend that Users pretest their application prior to incorporating the product into use and assume that the User will conduct such testing. Also see warranty statement on website.

Available In:

| Size: ½”x60” ¼”x520” ⅝”x260” ⅜”x520” ⅜”x1296” |
| P/N: 16006 16025 16030 16035 16040             |

| Size: ⅝”x260” ⅜”x520” 1”x260” 1”x520”         |
| P/N: 16045 16050 16055 16060                 |

| Size: Counter Display ⅝”x260” 1/2”x520” ⅜”x520” |
| P/N: 16030A 16035A 16050A                   |

POLY-TEMP® IS A REGISTERED TRADEMARK OF ANTI-SEIZE TECHNOLOGY