



Date: 12/11/25

Joe Beard & Sons
5766 Prospect Dr.
Newburgh, IN 47630

Project #: 25-4680
Project: Sample Manhole

We are sending you the attached:

- Submittal details-file copy only
- Submittal details for approval

To ensure quality service, and to aid you with your desired work schedule please return this submittal package with any comments/corrections in a timely fashion so that we can begin the production and management of your project.

Submittal details for production prior to engineer's approval

- Request of production prior to engineer's approval requires contractor/customer to accept purchase and delivery without exception.
- Your approval verification below must be returned to Infrastructure Precast, Inc. before production can be scheduled (see below)

I, _____, understand that I am instructing Infrastructure Precast, Inc. to proceed with production without the Engineer's submittal approval; therefore, I agree that all financial responsibility rests with me regardless of any changes made by the Engineer that may occur after the fact.

Signature: _____ Date: _____

Detailed submittal drawings for non-standard structures

For all non-standard items a detailed submittal drawing is created and must be reviewed by the contractor and the Project Engineer to ensure accuracy before Infrastructure Precast, Inc. can produce any non-standard structure.

COPIES	DATE	DESCRIPTION
1 via email	12/11/25	Submittal drawings for review and approval.

The above items are transmitted for your review and approval. Please contact your project manager with any questions.

Project Manager: Jonathon Ross, PE
Phone – (270) 363-2238
Email – jon@icastinc.com



RFI

(Request for Information)

- 1.) 54680 (2): Verify all information for this manhole, no elevations, pipe types or angles have been provided.



Work Order Submittals (Sanitary)

Job Name: 25-4680 Sample Manhole
Job Location: Newburgh, IN
Contractor: Joe Beard And Sons

PC: T. Lewis
 TECH: S. Felletter
 Plant: Beaver Dam



Structure ID: **54680 (2)**
 Spec: Sanitary
 Type: SAN.MH w/ConBlock-CDA Red
 Size: 48"

Rim: 6'
 Invert: 0'
 Rim to Invert: 6'

Sump: 3"
 Floor (Top): -0.25'
 Floor Height: 6"

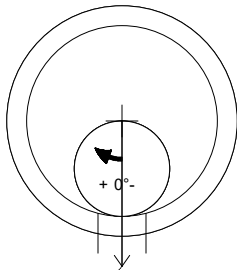
Floor (Bot): -0.75'
 Overall Height: 6.75'
 Slack: 0"

Structure Notes:

- JR HOE MC-285 PROVIDED BY ICAST.
- PER ASTM C478 SPECIFICATIONS.
- CONCRETE = 4,000 PSI AT 28 DAYS.
- ADMIXTURE = CONBLOCK CDA RED.
- REINFORCING PER ASTM A615 (GRADE 60).
 - CONE (As .12)
 - RISER/WALLS (As .12)
 - FLOOR (As .31) #5 BARS AT 12" C.C.E.W.
- **NO STEPS**
- VERIFY ALL INFORMATION, NO INFORMATION HAS BEEN PROVIDED.

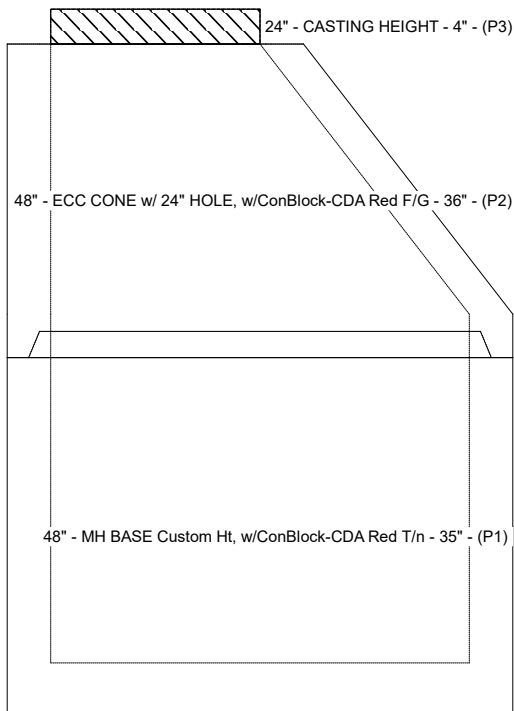
STRUCTURE SUMMARY:

P3) 24" - CASTING HEIGHT - 4"	0 lb
P2) 48" - ECC CONE w/ 24" HOLE, w/ConBlock-CDA Red F/G - 36"	2251 lb
P1) 48" - MH BASE Custom Ht, w/ConBlock-CDA Red T/n - 35"	3727 lb
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212	0 lb
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)	0 lb
1) 48" - MH INVERT CHANNEL w/ConBlock-CDA Red - FULL HEIGHT	1440 lb
1) CASTING - HOE MC-285 F/C Sanitary	284 lb
1) 48" - Conseal CS-102 1.00" (Double)	0 lb
1) PSX - 12-06 NYLO	8 lb
Structure Total:	7711 lb

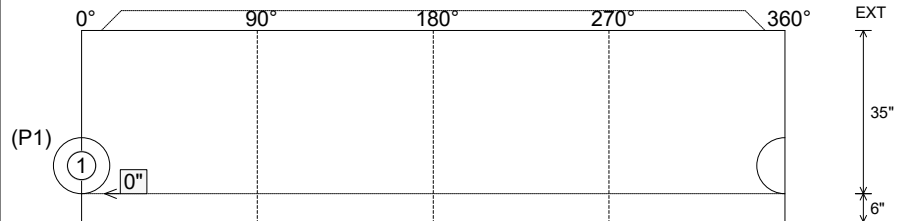


Invert: 1
 Degree: 0°

Position	Elev	Angle	Pipe	Pipe OD	Hole	Connector	Up (L)	Ref
Rim	6'							
Reducer								
Invert 1	0'	0°	6" PVC SDR35	6.25"	12"	PSX 12-06 NYLO	0"	P1
Invert 2								
Invert 3								
Invert 4								
Invert 5								
Invert 6								
Invert 7								
Invert 8								



Default - Interior Dimensions



Submittal Drawing
 12/11/2025 8:47:27 AM

SUBMITTAL
 APPROVED BY:



Casting Submittals (Typical)

HOE MC-285 ROUND MANHOLE FRAME & COVER



www.jrhoe.com 800-245-5521

Material Specs: ASTM A48
Class 35B, Gray Iron
Frame Weight: 160 LBS
Cover Weight: 124 LBS
Load Rating: H-20

Drawing Date: 04-01-12 **By:** SCD

Revision Date: . **By:** .

LEED: Gray iron castings are eligible for LEED credits under sections MR4 Recycled Content and MR5 Regional Materials.

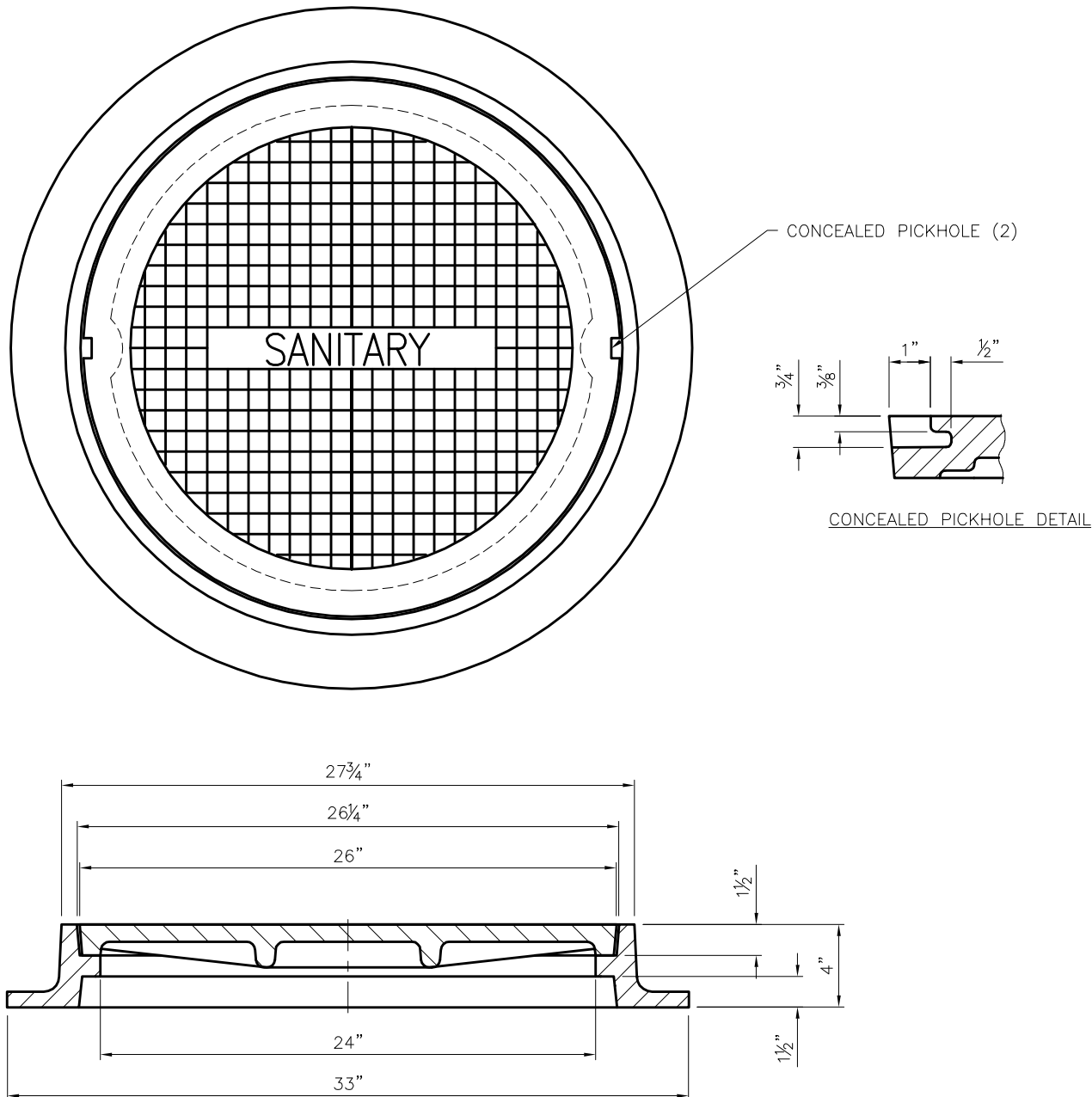
OPTIONS:

COVER LETTERED SANITARY, STORM, PLAIN, GREASE TRAP OR AS SPECIFIED

REVERSIBLE

GO BACK

Drawing is the property of J. R. Hoe & Sons, Inc. and contains confidential information. J. R. Hoe & Sons, Inc. has the right to make modifications without prior notice.





Accessories (Typical)

PSX: NYLO DRIVE™

PIPE TO MANHOLE & TANK CONNECTOR



Expansion mechanism at bottom is for display purposes only. Press-Seal recommends installation between a 10:00 and 2:00 position.



What It Is

The PSX: Nylo Drive™ is a high-performance flexible pipe-to-manhole connector that offers easy installation and long-term performance in one convenient product.

Whether you core or cast your holes, PSX: Nylo Drive fits right into your production methods, ready to seal your toughest applications every time.

How It Works

- The connector fits into a cast or cored hole.
- A power sleeve made from reinforced nylon polymer with stainless steel threaded inserts embedded in the expansion mechanism expands with a certified installation wrench.
- Take-up clamps made from series 304 stainless steel with quick adjusting screws secure the connector to the pipe.

Where To Use

- Manholes
- Wet wells
- Square pump and lift stations
- Stormwater structures
- On-site treatment structures
- Junction chambers
- Grease interceptors

Why It's Better

- Safely install from outside of the manhole preventing falls from crawling down into structures.
- Expansion mechanism components are made entirely of stainless steel threads.
- Precision molding provides accurate compensation for hole size variations.
- Additional torque and multiple adjusters on larger diameters.
- Contractor can save time and money by backfilling immediately.



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PSX: NYLO DRIVE™

SUBMITTAL SPECIFICATIONS

Pipe-to-Manhole and Structure Connector Specification for Sanitary and Storm Sewer Applications:

All pipe-to-manhole and structure connections shall meet and or exceed ASTM C 923, Standard Specification for Resilient Connectors Between Reinforced Concrete Manholes, Structures, Pipes and laterals.

All mechanical devices, including castings, bolt assemblies, adjusters shall use non-magnetic 300 series stainless steel with no welds or rivets in its assemblies.

If thermal plastic internal expansion rings are used, they must be heavy duty automotive grade material molded in one piece with an expansion installation mechanism made of a stainless steel threaded insert (not steel to plastic threads) and embedded as part of the expansion mechanism. Multiple plastic parts as part of the expansion mechanism are not allowed.

The installation of the connector shall be accomplished at one time and shall require no additional adjustments or installation at a later time to ensure a watertight seal.

Take up clamps shall use non-magnetic 304 series stainless steel and be installed in the field using a T-Handle Torque wrench set to 60 inch-pounds and installation shall follow manufacturer's instructions.

The connector shall be PSX: Direct Drive and PSX: Nylo Drive as manufactured by Press-Seal Corporation of Fort Wayne, IN or approved equal.

Product Performance

Nylo Drive™ meets or exceeds the all requirements of the following specifications:

- ASTM C 923 - Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals
- ASTM C 1244 Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test
- ASTM C 1478 - Standard Specification for Storm Drain Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes, and Laterals
- ASTM F 2510 Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures and Corrugated High Density Polyethylene Drainage Pipes

Best Practices

1. Vacuum testing shall be conducted in strict conformance with ASTM C 1244, prior to backfill.
2. Pipe Stubs must be restrained from movement per ASTM C 923.
3. Tightening of the external stainless steel take-up clamps should be done by using a torque-setting wrench available from Press-Seal Corporation.



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Fax: (260) 436-1908

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Email: sales@press-seal.com
Web: www.press-seal.com

PSX: NYLO DRIVE™

SELECTION GUIDE

NYLO DRIVE™ SIZE and DESCRIPTION	HOLE SIZE	PIPE O.D. ACCOMMODATION RANGE (INCHES)	GASKET I.D. (INCHES)	TAKE-UP CLAMP*	
				QTY	PART #
REQUIRES BLACK SHORT 7/16" TORQUE WRENCH PRESET TO 12 FT/LBS PART #850.605					
11-06 NYLO DRIVE™	11" 11.00-11.20" 279-284 mm	5.70" - 6.90" 145 - 175 mm	6.30" 160 mm	1	600.128
11-08 NYLO DRIVE™	11" 11.00-11.20" 279-284 mm	8.00 - 8.50" 203 - 216 mm	8.44" 214 mm	1	600.152
12-06 NYLO DRIVE™	12" 12.00-12.20" 305-310 mm	5.70" - 6.90" 145 - 175 mm	6.30" 160 mm	1	600.128
12-08 NYLO DRIVE™	12" 12.00-12.20" 305-310 mm	8.00 - 8.65" 203 - 220 mm	8.44" 214 mm	1	600.152
12M NYLO DRIVE™	12" 12.00-12.20" 305-310 mm	8.00 - 9.10" 203 - 231 mm	8.63" 219 mm	1	600.152
REQUIRES WHITE 9/16" TORQUE WRENCH PRESET TO 30 FT/LBS PART #850.620					
16Y NYLO DRIVE™	16" 16.00-16.20" 406-411 mm	10.00 - 11.10" 254 - 282 mm	10.75" 273 mm	1	600.188
16L NYLO DRIVE™	16" 16.00-16.20" 406-411 mm	11.36 - 12.50" 289 - 318 mm	12.10" 307 mm	1	600.232
16M NYLO DRIVE™	16" 16.00-16.20" 406-411 mm	12.75" 324 mm	12.75" 324 mm	1	600.232

NYLO DRIVE™ INSTALLATION WRENCH INFORMATION

Item	Installation Sizes	Wrench Part Number	Replacement Wrench Part Number
Black Short 7/16 Preset to 12ft.lbs.	11" - 12"	850.605	850.600H
White 9/16 Preset to 30ft. lbs.	16"	850.620	850.620H

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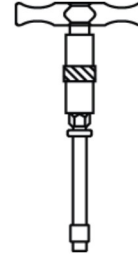
PSX: NYLO DRIVE™

INSTALLATION INSTRUCTIONS

1. Prepare the hole to receive the connector.
 - a. Clean the hole of any debris or loose dirt.
 - b. Examine the hole for any imperfections (bug holes) and wire ends in the gasket bearing surface.
 - c. Patch any voids (bug holes) with patching compound.
 - d. Remove any wire protruding up into the hole and patch with slurry if needed.
2. Select the correct Nylo Drive™ wrench. The wrenches and the adjusters are sized so that only the correct wrench can be used with each size adjuster, and will provide the correct torque. **DO NOT USE ANY OTHER SIZE OR TYPE OF WRENCH TO INSTALL NYLO DRIVE™**
3. Place the Nylo Drive™ connector in the hole with the adjuster mechanism in position so that it will be at the top of the hole (9 to 3 o'clock) in the final installed position of the manhole. Align the connector so that it is square to the hole. Check to make sure the black internal power sleeve is fully within the confinement space.
4. Place the wrench on the adjuster nut so that the arm of the wrench is on the installer's left side. This will ensure that the proper orientation is maintained.
5. Begin to tighten the Nylo Drive™ Connector by pulling the wrench handle toward the outside of the manhole. The wrench will ratchet back easily at the end of the stroke.
6. Continue tightening until proper torque is reached. The wrench will signal this by "breaking" slightly. Re-torque is not necessary prior to shipping with the Nylo Drive™.

ITEMS NEEDED

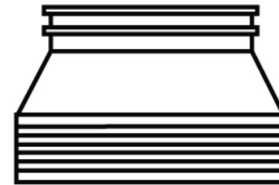
T-HANDLE TORQUE WRENCH



CLAMP



BOOT



HEX WRENCH



TIP: To remove an installed Nylo Drive™ Connector, simply reverse wrench position and loosen Connector. Connector may be reused without further adjustment.



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Liquid Admixture for Densifying and Waterproofing Concrete



Certified to NSF/ANSI/CAN 61

PRODUCT APPLICATIONS

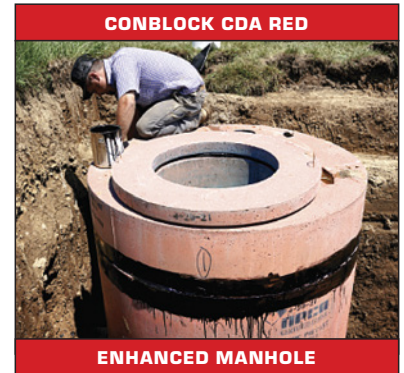
ConBlock CDA Red is designed to densify and waterproof concrete structures, such as: bridge and highway structures, tunnels and trenches, building foundations, garage and parking structures, below-grade precast structures, wastewater treatment plants, sewer pipes, manholes and water containment tanks (non-potable water).

PRODUCT DESCRIPTION

ConBlock CDA is a liquid Permeability Reducing Agent (PRA) that densifies concrete. When added to Portland cement concrete, the compressive strength is 25% greater than reference concrete after one day which allows faster handling of concrete and over 10% after 90 days. The amorphous silica crystal is fast-reacting, allowing performance to be realized immediately. Due to the tightening of the void space, concrete bleeding is reduced, allowing finishing operations to occur more quickly. **After 21 days at 200 psi (CRD-C48) water did not pass through the concrete.** ConBlock CDA Red's densification properties allow it to be suitable for use in Hydrostatic (PRAH) and non-hydrostatic (PRAN) installations.

FEATURES AND BENEFITS

- Easy to use liquid admixture
- Densifies concrete and enhances durability
- Accelerates cement hydration leading to strength development increase
- Concrete waterproofing resistant to hydrostatic pressures up to 200 psi
- Reduces pore-water/bleed-water in placed concrete
- Meets ASTM C494, Type S requirement / AASHTO M194



PHYSICAL PROPERTIES

Color: RED
 Odor: None
 Density: 9.10 - 9.28lbs/gal.
 pH: 5.7 - 8.7
 Solids (%): 14.0 - 16.0
 Viscosity: 500 Centipoise (CPS) Min.

DO NOT SUBJECT CONBLOCK CDA RED TO FREEZING TEMPERATURES BEFORE USE.

TESTING

STANDARD TEST METHOD	CONBLOCK CDA RED RESULTS VS. REFERENCE
CRD-C48 Permeability of Concrete	Coefficient of permeability rating (K)= 1.3×10^{-13} (96% reduction), 21 days
ASTM C39 Compressive Strength of Concrete	25% increase after 1 day >10 % increase after 28 days
ASTM C1585 Measurement of Rate of Absorption of Water by Hydraulic Cement Concretes	36% reduction after 90 days
ASTM C157 Length Change of Hardened Hydraulic-Cement Mortar and Concrete	Dry shrinkage of 0.013% (130 microstrain) after 56 days; 70% less than reference
ASTM C1567 Determining the Potential Alkali-Silica Reactivity of Cementitious Materials and Aggregate	10% reduction after 28 days
ASTM C1260 Determining the Potential Alkali-Silica Reactivity of Aggregates	18% reduction after 28 days
ASTM C1760 Bulk Electrical Conductivity of Hardened Concrete	15% reduction at 1000 hz
BS EN 12390-8 Depth of Water Penetration under Pressure	36% reduction after 90 days

DIRECTIONS FOR USE

- High Range Water Reducer must be PCE (polycarboxylate ether) based.
- Increase the slump flow by 1 ½"-2" more than the desired flow before adding ConBlock CDA Red.
- Stir ConBlock CDA Red well before use.
- **Add ConBlock CDA Red at the end of the batch cycle, immediately - within 30 seconds - after the last ingredient.** Adding trim water is not prohibited at this time.
- Dosage: **63 fluid ounces per CWT** (hundred pounds of total cementitious materials)
- For every gallon of ConBlock CDA Red, the mix water content should be reduced by 0.85 gallons to maintain the design water-cementitious ratio.

P A T E N T P E N D I N G

LIMITED WARRANTY

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CONCRETE SEALANTS, INC. | 9325 STATE ROUTE 201, TIPP CITY, OH 45371, USA | WWW.CONSEAL.COM

USA | CANADA +1.800.332.7325 INTERNATIONAL +1.937.845.8776

VERSION: 5-APR-2024



CONCRETE SEALANTS, INC.
ISO 9001:2015 REGISTERED



CONSEAL™
CONCRETE SEALANTS INC.

Don't Just Seal It, ConSeal It!

ConSeal™ CS-75

Waterborne Pressure Sensitive
Adhesive (PSA), Surface Primer

A Waterborne PSA Surface Primer Bonding Sealants to Concrete, Plastic and Metal Surfaces

Applications

For use on concrete, plastic and metal surfaces, ConSeal CS-75 enhances the bonding between preformed sealants and concrete surfaces aiding in the installation process. Conveniently applied at the job site, CS-75 improves adhesion of the sealant to the concrete.



Physical Properties

Description

Color:	Bright Orange
% Solids:	33% minimum
Flash Point:	200°F minimum
Weight / Gallon:	8.0 Pounds
Dry Time @ 77°F (25°C):	10 minutes
Dry Time @ 40°F (4°C):	60 minutes
Clean Up:	Soap and Water
Coverage Per Gallon:	Approx. 300 square feet on wet cast concrete. Coverage diminishes on dry cast concrete.
Appropriate Substrates:	Concrete, Plastic, and Metal.
Min. Storage Temperature:	40°F (4°C), Product should not be allowed to freeze.
Min. Application Temperature:	40°F (4°C), Remove frost from concrete surface before applying.
Surface When Dry:	Tacky

DO NOT SUBJECT CS-75 TO FREEZING TEMPERATURES

Primer Application Procedures

The following procedures should be followed for optimum primer performance.

- Clean the surface with a brush and remove any dirt, debris, flashing, or concrete high points, which could keep ConSeal primer from adhering to the concrete.
 - Joint primer CS-75, is to be applied to improve sealant adhesion. CS-75 is a waterborne primer that dries tacky and must be applied at the time of the installation.
 - Allow the primer to dry before placing sealant. CS-75 will be tacky within 15-20 minutes (77°F at 50% relative humidity).
- Applying CS-75: ConSeal CS-75 is an adhesive primer that dries tacky. It is waterborne and does not contain volatile or flammable components. Open the pail and apply the product using a standard paintbrush or paint roller.

Limited Warranty

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Version: 12-Feb-20

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CONCRETE SEALANTS INC. ■ 9325 State Route 201 ■ Tipp City, OH 45371, USA ■ www.CONSEAL.com
Toll Free (USA): 800.332.7325 ■ Phone: +1.937.845.8776 ■ Fax: +1.937.845.3587



Concrete Sealants, Inc.
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ConSeal™ CS-102

Butyl Rubber Sealant



Butyl Rubber Sealant for All Precast Concrete Structures - Meets ASTM C-990

Applications

For concrete joints in: Manholes, Concrete Pipe, Vaults, Box Culverts, Septic Tanks, and Vertical Panel Structures. **Not intended for use in expansion joints or joints that move.**

Sealing Properties

- Provides permanently flexible watertight joints.
- Low to high temperature workability: 30°F to 120°F (-1°C to +48°C)
- Rugged service temperature: -30°F to +200°F (-34°C to +93°C)
- Excellent chemical and mechanical adhesion to clean dry surfaces.
- Greater cohesive and adhesive strengths.
- Sealed joints will not shrink, harden or oxidize upon aging.
- Controlled flow resistance for application ease.
- No priming normally necessary. When confronted with difficult installation conditions, such as wet concrete or temperatures below 40°F (4°C), priming the concrete will improve the bonding action. Consult Concrete Sealants for the proper primer to meet your application.

Hydrostatic Strength

ConSeal CS-102 meets the hydrostatic performance requirement as set forth in ASTM C-990 section 10.1 (Performance requirement: 10psi for 10 minutes in straight alignment – in plant, quality control test for joint materials.)

Specifications

ConSeal CS-102 meets or exceeds all of the requirements of Federal Specification SS-S-210 (210-A), AASHTO M-198B, and ASTM C-990-91.

Physical Properties

Description

	Spec	Required	CS-102
Color			Black
Specific Gravity, 77°F	ASTM D71	1.15-1.50	1.25
Ductility, 77°F	ASTM D113	5.0 min.	10
Penetration, cone 77°F (25°C), 150 gm, 5 sec.	ASTM D217	50-100 mm	55-60 mm
Penetration, cone 32°F (0°C), 150 gm, 5 sec.	ASTM D217	40 mm min.	40-65 mm
Flash Point, C.O.C., °F	ASTM D92	350°F min.	450°F
Fire Point, C.O.C., °F	ASTM D92	375°F min.	475°F

Don't Just Seal It, ConSeal It!

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ConSeal™ CS-102

Butyl Rubber Sealant



Butyl Rubber Sealant for All Precast Concrete Structures - Meets ASTM C-990

Chemical Composition

Description

	Spec	Required	CS-102
Hydrocarbon plastic content % by weight	ASTM D297	50% min.	51%
Inert mineral filler % by weight	AASHTO T111	30% min.	35%
Volatile Mater % by weight	ASTM D6	2% max.	1.2%
Non-extractable, carbon-based material			12.8%
Recycled Content, % by weight			
Post Consumer:			8.41%
Post Industrial:			10.85%

Immersion Testing

30-Day Immersion Testing: No visible deterioration when tested in 5% Caustic Potash, 5% Hydrochloric Acid, 5% Sulfuric Acid, and 5% saturated Hydrogen Sulfide.

One Year Immersion Testing: No visible deterioration when tested in 5% Formaldehyde, 5% Formic Acid, 5% Sulfuric Acid, 5% Hydrochloric Acid, 5% Sodium Hydroxide, 5% Hydrogen Sulfide, and 5% Potassium Hydroxide.

Limited Warranty

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Concrete Sealants, Inc.
ISO 9001:2015 Registered

ConSeal™ CS-212

Polyolefin Backed Exterior Joint Wrap



Membrane Waterproofing and Exterior Joint Wrap for Precast Concrete Joints

Applications

For joints in: Box Culverts, Underground Concrete Vaults, Segmented Bridge Structures, Wastewater Structures and Arched Bridge Structures, Manholes. **Not intended for use in expansion joints or joints that move.**

Sealing Properties

- Excellent resistance to puncture, tear and abrasions.
- Aggressively bonds to concrete and metal structures.
- Provides a permanent flexible water and soil barrier.
- Will not shrink, harden or oxidize upon aging.
- Available in numerous standard sizes.
 - Standard thicknesses: 0.065" and 0.100"
 - Standard widths: 4", 6", 8", 9", 12", 24", 36" and 48"
- Custom widths and lengths available upon request.
- No priming normally necessary. When confronted with difficult installation conditions, such as wet concrete or temperatures below 40°F (4°C), priming the concrete will improve the bonding action. Consult Concrete Sealants for the proper primer to meet your application.

Specifications

ConSeal CS-212 meets ASTM E-1745, C-877, C-990 Specifications, and AASHTO M198 Type B.

Technical Data

ASTM E-1745: Standard specification for plastic water vapor retarders used in contact with soil or granular fill under concrete slabs.

Class C. Specification	Test Method	E-1745 Requirement	CS-212
Water Vapor Permeance	ASTM F-1249	0.30 perms, max.	0.045 perms, max.
Tensile Strength	ASTM E-154	13.6 lbs./ inch, min.	21.0 lbs./ inch, min.
Puncture Resistance	ASTM D-1709	475 grams, min.	864 grams, min.

ASTM C-877: Standard specification for external sealing bands for non-circular concrete sewer, storm drain and culvert pipe.

Type III, Specification	E-1745 Requirement	CS-212
Backing Bond Element	4 Mil, min. thickness	4 Mil
Butyl Rubber Adhesive	0.03 inch, min. thickness	0.065, min.

Don't Just Seal It, ConSeal It!

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Concrete Sealants, Inc. 9325 State Route 201 ■ Tipp City, OH 45371 ■ **Toll Free** 800.332.7325

P. 937.845.8776 **F.** 937.845.3587 ■ **www.conseal.com**



Concrete Sealants, Inc.
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ConSeal™ CS-212

Polyolefin Backed Exterior Joint Wrap



Membrane Waterproofing and Exterior Joint Wrap for Precast Concrete Joints

Technical Data Continued

ASTM C-990: Standard specification for joints for concrete pipe, manholes and precast box sections using preformed flexible joint sealants.

Section 6, Specification	Test Method	C-990 Requirements	CS-212
Hydrocarbon blend content % by weight	ASTM D-4	50-70%	52, min.
Inert mineral filler % by weight	ASTM C-990	30% min.	45, min.
Volatile Matter % by weight	ASTM C-990	2.0 max.	1.20
Specific Gravity	ASTM C-990	1.15-1.50	1.20-1.25
Ductility, 7°F	ASTM D-113	5.0, min.	12, min.
Penetration, cone 77°F, 150 gm. 5 sec.	ASTM D-217	50-120 mm	70-80 mm
Softening point, °F	ASTM D-36	320°F, min.	335°F, min.

Limited Warranty

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