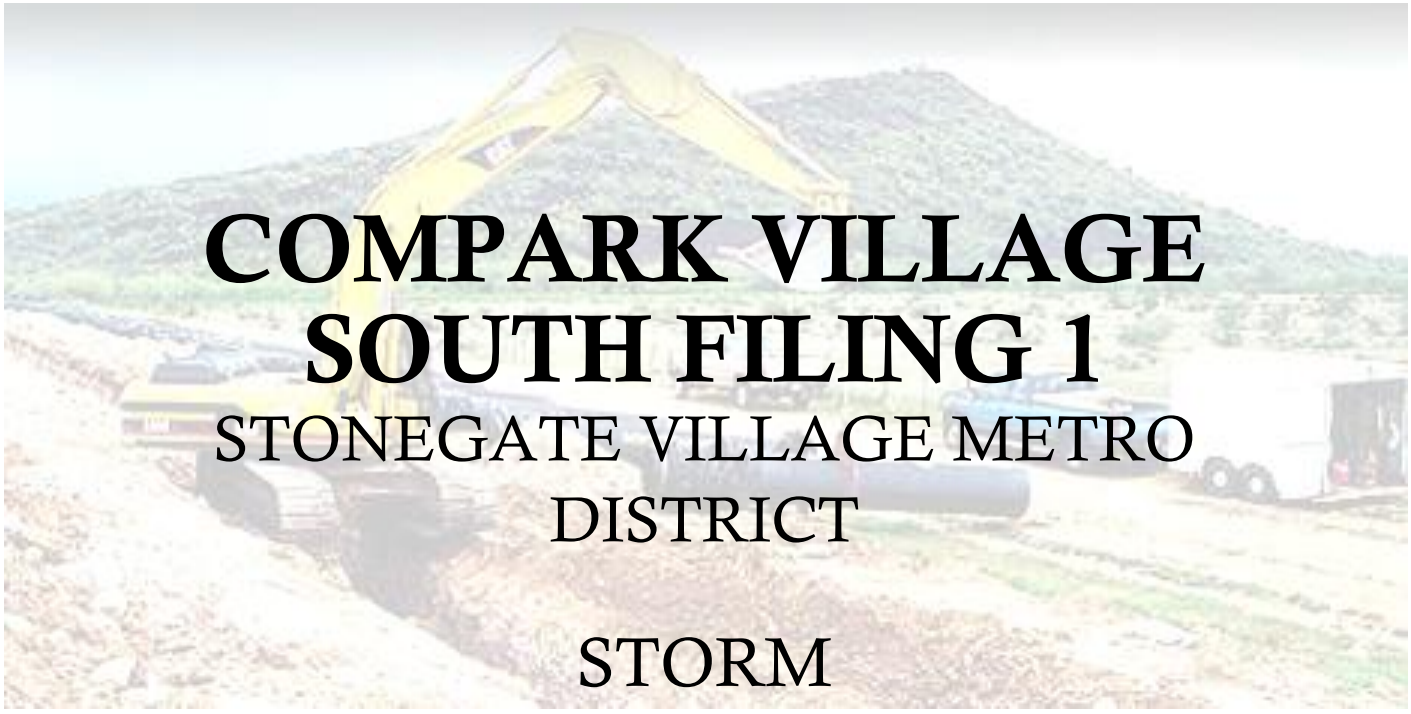
FERGUSON®
Waterworks
a WOLSELEY company

We are proud to provide submittals for the following project:



COMPARK VILLAGE SOUTH FILING 1

STONEGATE VILLAGE METRO DISTRICT

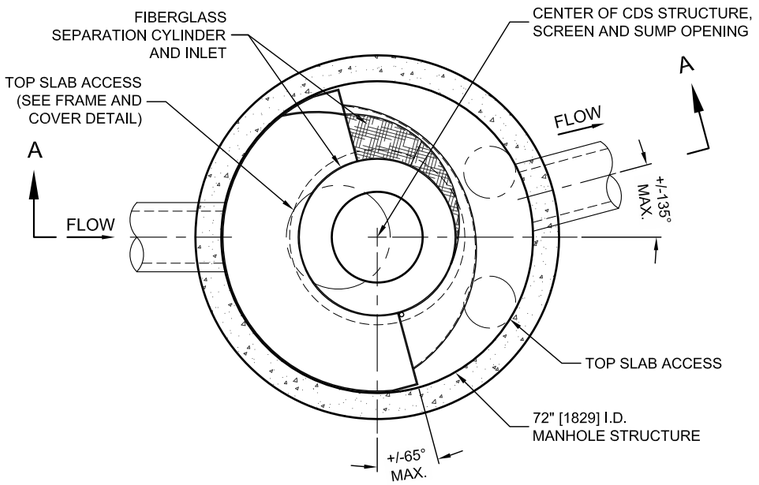
STORM

Prepared for:
IRON WOMAN CONSTRUCTION

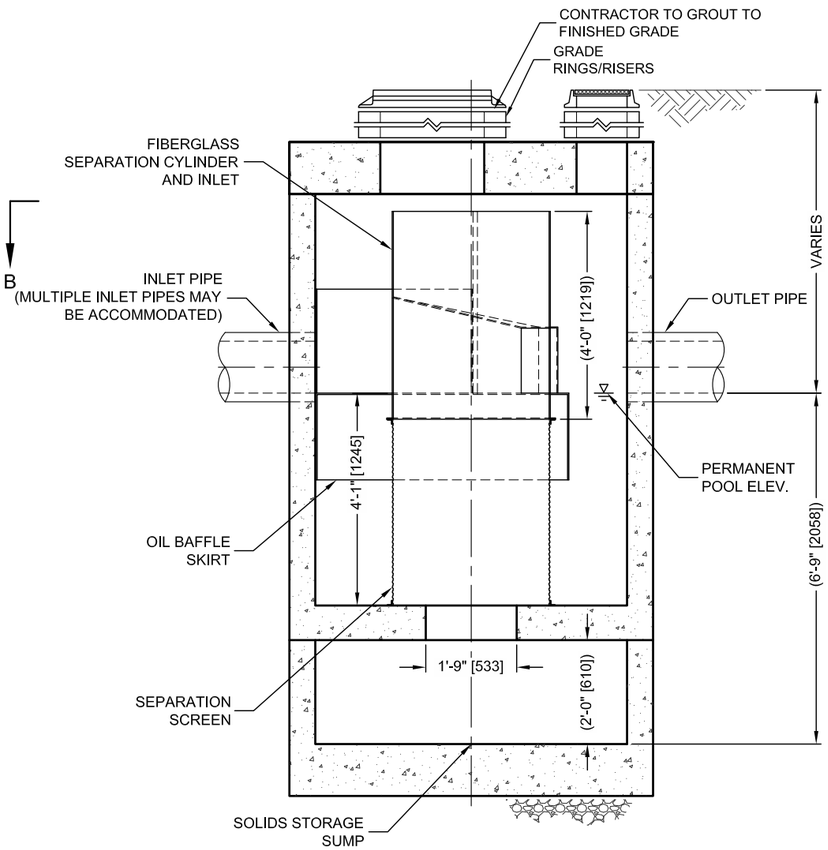
1788 Helena St.
Aurora, CO
Phone: (720) 859-3060
Fax: (303) 366-0215

STORM

CDS WATER QUALITY STRUCTURE



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

CDS3035-6-C DESIGN NOTES

THE STANDARD CDS3035-6-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

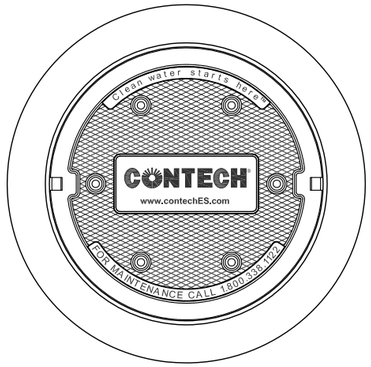
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS

☐ No Exception Taken
☐ Approved as Noted
☐ Rejected
☒ Revise and Resubmit

This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the submittal during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Approval of a specific item shall not include approval of an assembly of which the item is a component. Contractor is responsible for: dimensions to be confirmed and correlated at the jobsite, information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction; coordination of his or her Work with that of all other trades; and for performing all work in a safe and satisfactory manner.

Manhard Consulting, Ltd.

Date: 01/08/2021 By: Gary Iwata



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/s)	*
PEAK FLOW RATE (CFS OR L/s)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

CONTRACTOR TO USE MODEL AND TYPE OF CDS UNIT SPECIFIED WITHIN THE APPROVED CONSTRUCTION DOCUMENTS. REFERENCE SHT 50 OF 50

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS3035-6-C
INLINE CDS
STANDARD DETAIL

TRENCH DRAIN

HDPE PERF PIPE

TECHNICAL NOTE

Dual Wall HDPE Perforation Patterns

TN 1.01
January 2015

Introduction

Perforated pipe plays an integral role in many applications of HDPE pipe. Generally, perforated pipe is used to accelerate the removal of subsurface water in soils or to allow storm water to percolate into the soil. Currently, two classifications of perforations are specified in the AASHTO material specifications for HDPE pipe: Class I, and Class II. The Class II perforation pattern comes standard when perforated pipe is ordered. Class One perforated pipe has limited availability. Please check with a local representative to determine availability. Both classes are explained in more detail in the AASHTO materials specifications (M294 and M252). AASHTO M252 covers pipe diameters 3- through 10-inch (75 - 250 mm) while M294 covers 12-inch through 60-inch (300 - 1500 mm).

Standard Perforation Patterns

AASHTO Class II Perforation

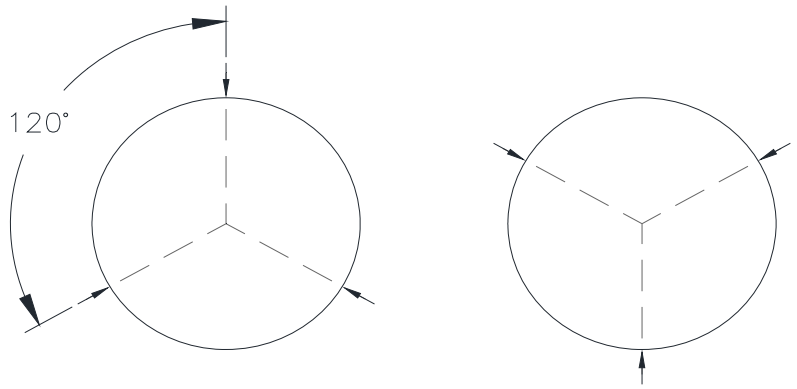
The following terminology for perforations is derived from the applicable AASHTO specification. Differences between the specifications are covered in the table below. Class II perforations shall be located in the outside valleys of the corrugations, be circular and/or slotted and evenly spaced around the circumference and length of the pipe. The perforations shall be located in the outside valleys of the corrugations. The water inlet area shall be no less than 0.945 in^2/ft (20 cm^2/m) for pipe diameters 4- through 10-inch (100 - 250mm), 1.42 in^2/ft (30 cm^2/m) for pipe diameters 12- through 18-inch (300 - 450 mm) and 1.89 in^2/ft (40 cm^2/m) for pipe diameters larger than and equal to 24 inches (600 mm). Table 1 below represents ADS standard perforation patterns for AASHTO Class II.

Nominal I.D.		Perforation Type	Maximum Slot Length or Diameter		Maximum Slot Width		Minimum Inlet Area	
in	mm		in	mm	in	mm	in^2/ft	cm^2/m
4	100	Slot	0.875	22	0.125	3	1.0	21
6	150	Slot	0.875	22	0.125	3	1.0	21
8	200	Slot	1.18	30	0.125	3	1.0	21
10	250	Slot	1.18	30	0.125	3	1.0	21
12	300	Circular	0.313	8	-	-	1.5	32
15	375	Circular	0.313	8	-	-	1.5	32
18	450	Circular	0.313	8	-	-	1.5	32
24	600	Circular	0.313	8	-	-	2.0	42
30	750	Circular	0.375	9.5	-	-	2.0	42
36	900	Circular	0.375	9.5	-	-	2.0	42
42	1050	Circular	0.375	9.5	-	-	2.0	42
48	1200	Circular	0.375	9.5	-	-	2.0	42
54	1350	Circular	0.375	9.5	-	-	2.0	42
60	1500	Circular	0.375	9.5	-	-	2.0	42

Figure 1
AASHTO Class II Perforation Patterns

Note: Actual pattern may vary by region, however all patterns meet the AASHTO and ASTM minimum requirements for the open inlet area.

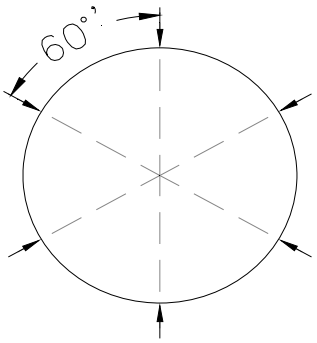
4" – 10"
PIPE DIAMETERS



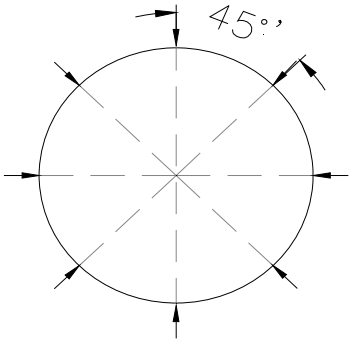
3 AT 120°

ROTATED
EVERY VALLEY

12" – 18"
PIPE DIAMETERS



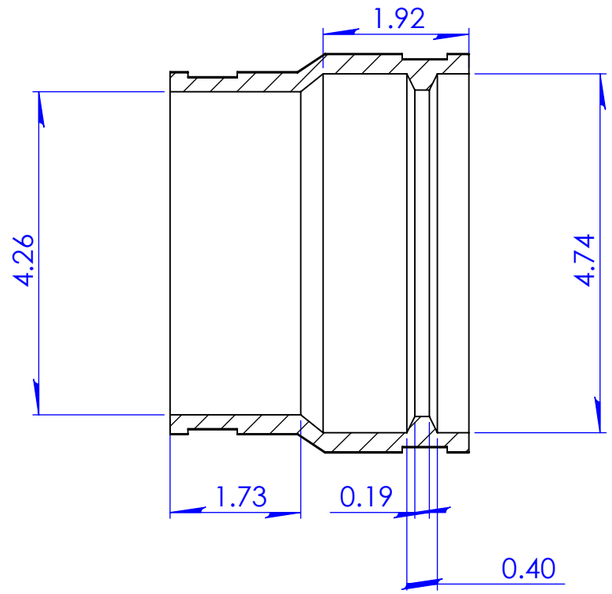
** NUMBER OF HOLES AROUND CIRCUMFERENCE VARIES BASED ON DIAMETER AND REGION **

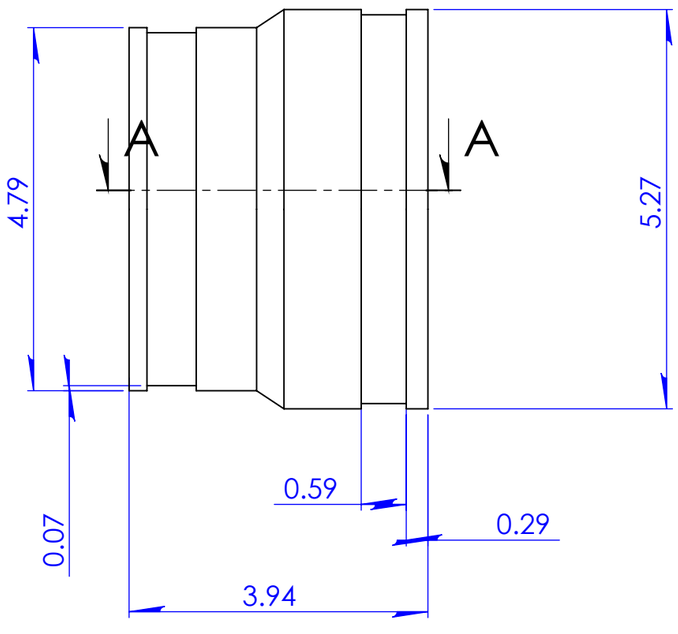


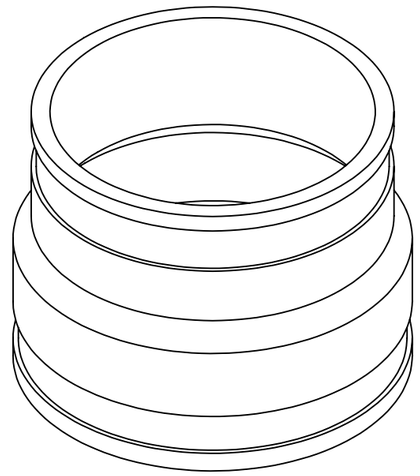
** NUMBER OF HOLES AROUND CIRCUMFERENCE VARIES BASED ON DIAMETER AND REGION **

HDPE FITTINGS

SECTION A-A







- [x] No Exception Taken
- [ ] Approved as Noted
- [ ] Rejected
- [ ] Revise and Resubmit

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Manhard Consulting, Ltd.

Date: 01/08/2021 By: Gary Iwata

Part Weight	0.087 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 60 Duro Shore A
Installation Torque	60" Lbs.
Conforms to ASTM	D5926, C1173
Box Quantity	20
Clamps used	300 Series

FERNCO® PlumbQwik Inc.

300 S. DAYTON ST.
DAVISON, MI 48423
PH: 810-653-9626
FAX:810-654-2616

TOLERANCES:
.X= Fractional ±
.XX= ±.060
.XXX= ±.032
ANG.= ±0.5°
UNLESS OTHERWISE SPECIFIED

DESCRIPTION:
Coupling 4" ADS x 4" Cast Iron/Plastic

1070-44

UNITS:	SIZE	DESIGNER:	SCALE
INCHES	A	D. Brady	not to scale

3RD ANGLE PROJECTION DO NOT SCALE DRAWING	CHECKER:	DATE: 7/20/2009	SHEET 1 OF 1

ADS INJECTION MOLDED FITTING SPECIFICATION

Scope

This specification describes 4- through 12-inch (100 to 300 mm) ADS Injection Molded Fittings for use in joining gravity-flow drainage pipe. Available fittings include tees, wyes, bends, couplers, and reducing fittings.

Fitting Requirements

ADS Injection Molded Fittings shall have a smooth interior and exterior.

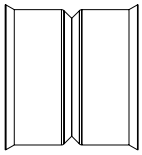
- 4- through 10-inch (100 to 250mm) shall meet the fitting requirements of AASHTO M252.
- 12-inch (300mm) shall meet AASHTO M294 or ASTM F2306.

Joint Performance

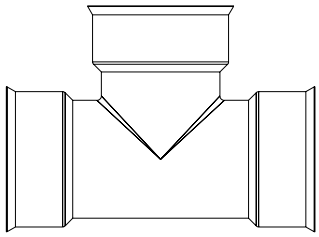
The fittings shall provide a joint meeting AASHTO M252, AASHTO M294 or ASTM F2306. For non-gasketed fittings, dimples in the bell shall engage the corrugation to provide a soil-tight connection. For gasketed fittings, the joint shall be watertight according to the requirements of ASTM D3212. Gaskets shall be made of EPDM meeting the requirements of ASTM F477. Gaskets shall be supplied by the pipe manufacturer. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.

Material Properties

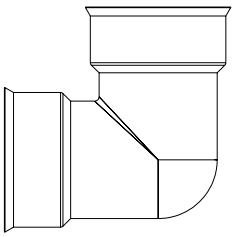
Virgin material for fitting production shall be high density polyethylene conforming with the minimum requirements of cell classification 314420C or 314420E for 4- through 12-inch (100 to 300mm) diameters, as defined and described in the latest version of ASTM D3350, except that carbon black content should not exceed 4%.



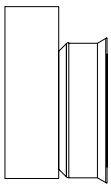
SIZE-ON-SIZE OR REDUCING BELL-BELL COUPLER



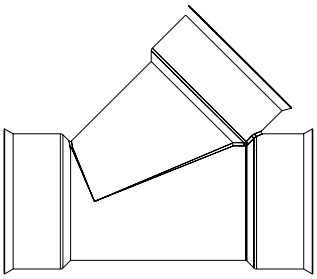
SIZE-ON-SIZE OR REDUCING TEE



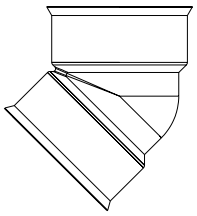
90-DEG BEND



SPIGOT-BELL REDUCER



SIZE-ON-SIZE OR REDUCING 45-DEG WYE

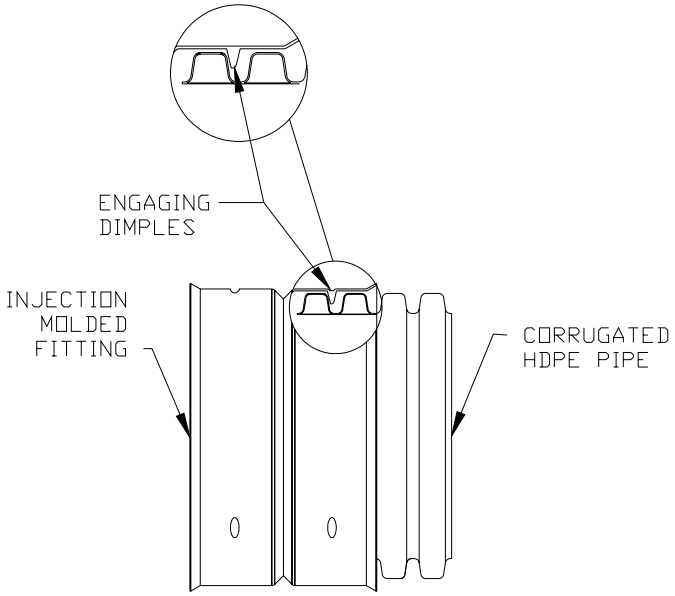


45-DEG BEND

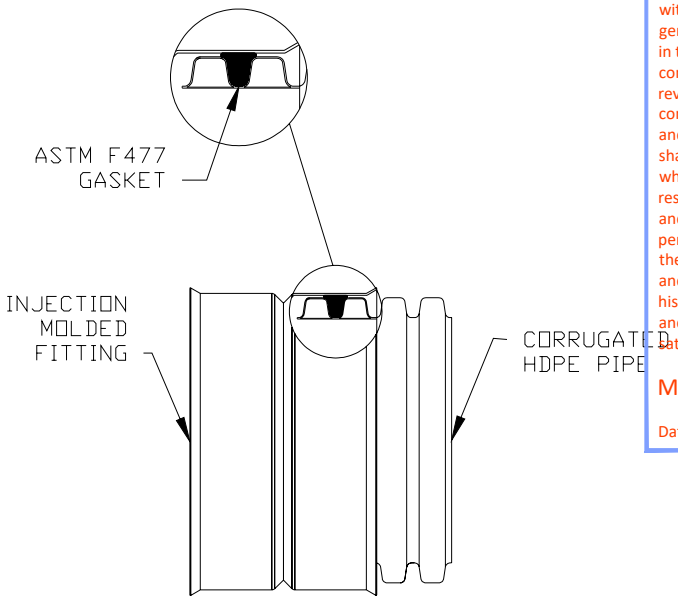
Refer to the Product Catalog for a complete listing of available fittings. Availability may vary for each fitting type based on diameter or joint performance.

INJECTION MOLDED FITTINGS JOINT SYSTEM

(Joint configuration & availability subject to change without notice. Product detail may differ slightly from actual product appearance.)



SOIL-TIGHT (ST)
JOINT CONFIGURATION



WATERTIGHT (WT)
JOINT CONFIGURATION

SCH40 PIPE & FITTINGS

CHARLOTTE
PIPE AND FOUNDRY COMPANY

This is to certify that all Plastic Pipe and Fittings manufactured by Charlotte Pipe and Foundry Company are manufactured in the United States and conform to the following standards:

SCH. 40 PVC PIPE
ASTM D 1784, ASTM D 1785, ASTM D 2665
FHA UM 79a
FEDERAL SPECIFICATION L-P-320a
NSF STANDARD NO. 14 AND 61

SCH. 40 PVC DWV PIPE CELLULAR CORE
ASTM D 4396, ASTM F 891
NSF STANDARD NO. 14

SCH. 40 RePVC® DWV PIPE
ASTM D 4396, ASTM F 1760
NSF STANDARD NO. 14

SCH. 40 PVC DWV FITTINGS
ASTM D 1784, ASTM D 2665, ASTM D 3311,
ASTM F 1866
FHA UM 79a
FEDERAL SPECIFICATION L-P-320a
NSF STANDARD NO. 14

PVC PRESSURE PIPE SDR-21 AND SDR-26
ASTM D 1784, ASTM D 2241
NSF STANDARD NO. 14 AND 61

PVC SCH. 40 PRESSURE FITTINGS
ASTM D 1784, ASTM D 2466
NSF STANDARD NO. 14 AND 61

PVC WELL CASING PIPE
ASTM D 1784, ASTM F 480
NSF STANDARD NO. 14 AND 61

PVC SCH. 80 PIPE
ASTM D 1784, ASTM D 1785, PVC 1120
NSF STANDARD NO. 14 AND 61

PVC SCH. 80 FITTINGS
ASTM D 1784, ASTM D 2467, ASTM D 2464,
ASTM F 1970
NSF STANDARD NO. 14 AND 61

PVC SEWER MAIN PIPE
ASTM D 1784, ASTM D 3034 SDR 35
ASTM D 3212, ASTM F 477

PVC SEWER AND DRAIN PIPE
ASTM D 1784, ASTM D 2729

PVC THIN WALL PIPE AND FITTINGS
ASTM D 1784, ASTM D 2949
NSF STANDARD NO. 14

CPVC CTS FLOWGUARD GOLD® PIPE & FITTINGS
ASTM D 1784, ASTM D 2846
FHA UM-61a
NSF STANDARD NO. 14. AND 61
CSA LISTED ON SPECIFIED ITEMS

CPVC CTS REUZE® PIPE
ASTM D 1784, ASTM D 2846
NSF STANDARD NO. 14

CHEMDRAIN® CPVC SCHEDULE 40 PIPE AND FITTINGS
ASTM D 1784, ASTM F 2618
NSF STANDARD NO. 14

SCH. 40 ABS DWV PIPE CELLULAR CORE
ASTM D 3965, ASTM F 628
NSF STANDARD NO. 14
cNSF® us-dwv

SCH. 40 ABS DWV FITTINGS
ASTM D 3965, ASTM D 2661, ASTM D 3311
FHA UM 79a
FEDERAL SPECIFICATION L-P-322b
NSF STANDARD NO. 14

Very truly yours,

Hooper Hardison

Hooper Hardison, President

Terri L. Wilson

Notary Public
My commission expires July 02, 2017

TERRI L. WILSON
NOTARY PUBLIC
Union County, North Carolina
My Commission Expires July 2, 2017

LC-PL (6-27-12)

PO Box 35430 Charlotte, NC 28235 USA 704/372-5030 800/438-6091 FAX 800/553-1605
www.charlottepipe.com

MISCELLANEOUS

Product Notes

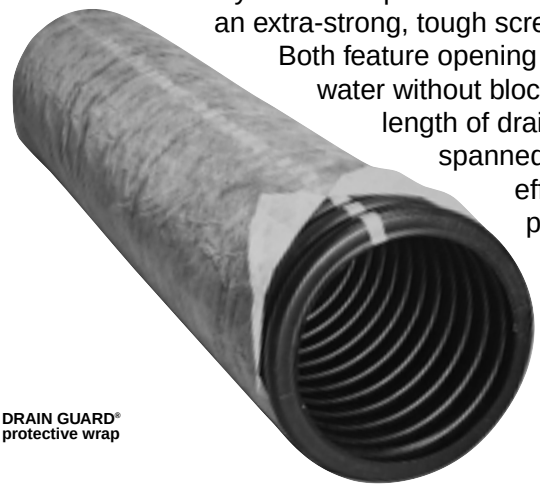
Product Note 3.102

Re: ADS Drain Guard and Sock
Date: March 1, 2002

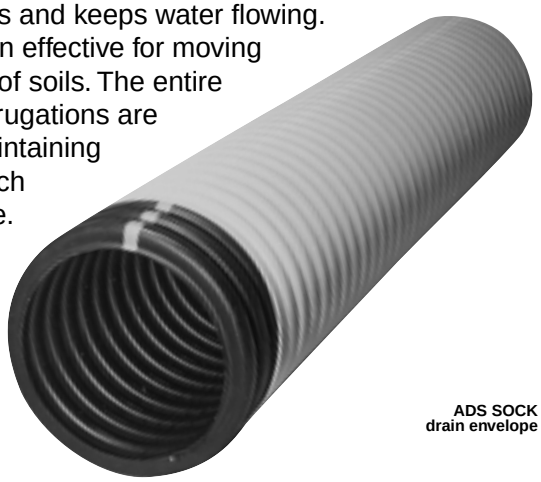
Solutions to Tough Siltation Problems

Now Advanced Drainage Systems offers you two ways to meet tough siltation challenges head on.

These synthetic wrap materials combine with ADS corrugated polyethylene pipe to give an extra-strong, tough screen that stabilizes soils and keeps water flowing. Both feature opening sizes that have proven effective for moving water without blockage in a wide range of soils. The entire length of drain is covered, and corrugations are spanned by the materials, maintaining effective inlet areas which promote rapid drainage.



DRAIN GUARD® protective wrap



ADS SOCK drain envelope

For drainage installations that require a tough, durable screen under normal handling conditions:

ADS DRAIN GUARD®

protective wrap, a complete, one-step drainage system for sandy and other problem soils, installed with conventional drainage equipment.

For jobs where the protective covering is subjected to unusually rough installation and handling conditions:

ADS SOCK

a flexible drain envelope that meets the needs of a wide range of soil conditions, installed with conventional drainage equipment.

Choose the ADS Synthetic envelope that's right for each job.

ADS DRAIN GUARD®

For normal routine installations.

Manufactured of 100% nylon, tough and durable DRAIN GUARD WEIGHS just 0.85 ounce per square yard. The material's unique bonding process gives you an ultraporous filter that restrains and stabilizes the soil, yet allows free entry of water.

ADS SOCK

For more rough-and-tumble installations.

A polyester machine-knitted envelope that provides the needed water entry and sediment protection. SOCK weighs approximately three ounces per square yard. SOCK stretches to fit snugly over the pipe and gives the extra protections required by rough handling conditions.

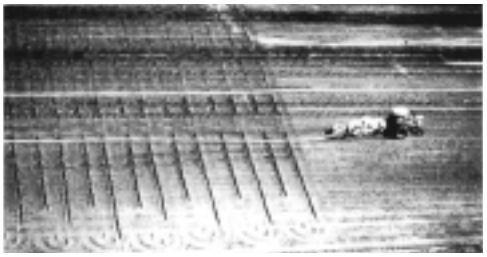
4640 TRUEMAN BLVD. HILLIARD, OH 43026 (800) 821-6710 http://www.ads-pipe.com

TECHNICAL INFORMATION

	DRAIN GUARD	ADS SOCK
Material	Nylon (100%)	Polyester (100%)
Fabric	Spun Bond	Knitted
Fiber size (denier per filament)	5	100 to 200
Weight (ounces per square yard) (ATSM D 3776)	0.85	2.5 to 3.5
Burst Strength (pounds per square inch) (ATSM D 3786)	28	100-135
Air Permeability (CFM per square foot) (ATSM D 737)	650	700
Equivalent Opening Size (Army Corps of Engineers) (W 02215)	50	30 to 40
Water Flow Rate ($gal/min/ft^2$) (ATSM D 4491)	163	———–
Melt Temperature (ATSM D 3786)	218˚C (425˚F.)	258˚C (496˚F.)

If either Drain Guard or Sock is not scheduled for immediate installation, it should be protected from sunlight's UV Rays.
Drain Guard is normally bagged in UV resistant bags for shipping.
*Nominal values for Drain Guard and Sock Filter material.

For applications in agriculture, highway construction and the building industry, ADS has the synthetic drain envelope for every job.



Each is strong, non-biodegradable and gives you the excellent filtering and soil stabilizing characteristics you need. Both **DRAIN GUARD** and **ADS SOCK** perform equally well in the ground for the life of your drainage installation. And, because these materials are factory installed on ADS pipe, you'll save valuable labor costs in the field.

STANDARD FEATURES

ADS DRAIN GUARD AND SOCK synthetic wrap materials — admit fine silt and clay; restrain sands and coarse silts — non-toxic, non-irritating — inert in soil — non-biodegradable — resist alkalis and acids — will not rot — not affected by freezing or thawing — continuouslengths up to 5000' — available for drainage pipe sizes from 3″ to 24″ diameter — factory applied, ready for installation — lower labor costs in the field.

Applicable Specifications
SCS Engineering Standards Code 606 — **ASTM** D 6707 — **ASTM** F405 — **ASTM** F667 — **ASTM** F449 — **AASHTO** M252, M294

NON-WOVEN GEOTEXTILE

GT - 142

☒ No Exception Taken
☐ Approved as Noted
☐ Rejected
☐ Revise and Resubmit

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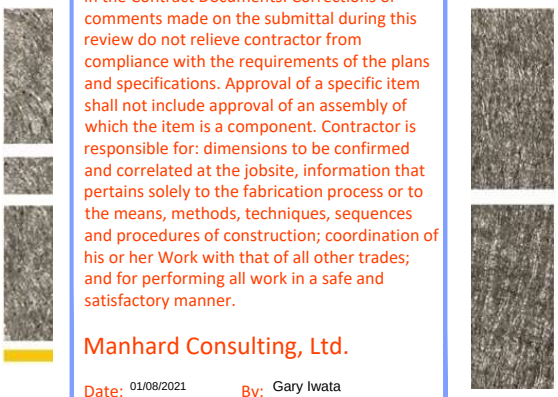
Manhard Consulting, Ltd.

Date: 01/08/2021 By: Gary Iwata



SKAPS GT-142 is a needle-punched nonwoven geotextile made of 100% virgin polypropylene staple fibers, which are formed into a random network for dimensional stability. SKAPS GT-142 resists ultraviolet deterioration, rotting, biological degradation, naturally encountered alkalis and acids. Polypropylene is stable within the pH range of 2 to 13. SKAPS GT-142 is NTPEP certified and meets requirements as per AASHTO Standards and/or D.O.T. Standards.

SKAPS GT-142 conforms to the Minimum Average Roll Values (MARV) listed below:

Property	Method	English (MARV[2])	Metric (MARV[2])
Grab Tensile Strength	ASTM D 4632	120 lbs.	0.553 kN
Grab Elongation	ASTM D 4632	50%	50%
Trapezoid Tear Strength	ASTM D 4533	50 lbs.	0.222 kN
CBR Puncture Resistance	ASTM D 6241	340 lbs	1.512 kN
Permittivity[4]	ASTM D 4491	1.70 sec^{-1}	1.70 sec^{-1}
Water Flow[4]	ASTM D 4491	135 gpm/ft^2	5500 $l/min/m^2$
Apparent Opening Size (AOS)[3&4]	ASTM D 4751	70 Std. U.S. Sieve	0.212 mm
UV Resistance	ASTM D 4355	70%/500 hrs.	70%/500 hrs.

Packaging

Roll Dimensions (W x L)	12.5 x 360 ft. 15 x 360 ft.	3.81 m x 109.8 m 4.6 m x 109.8 m
Area Per Roll	500 sq. yards 600 sq. yards	418.3 sq. meters 505.1 sq. meters
Estimated Roll Weight	152 lbs. 180 lbs.	69 kg 82 kg

Note

1. The property values listed above are subject to change without notice.
2. Minimum Average Roll Values (MARV) is calculated as the average minus two standard deviations. Statistically, it yields approximately 97.5% degree of confidence that any samples taken from quality assurance testing will meet or exceed the values described above.
3. Maximum Average Roll Value (MaxARV)
4. At time of manufacturing. Handling may change these properties.

This information is provided for reference purposes only and is not intended as a warranty or guarantee. SKAPS assumes no liability in connection with the use of this information.

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Oatey®
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TECHNICAL SPECIFICATION

PURPLE PRIMER CLEANER

Quality ISO 9001 System

TECHNICAL SPECIFICATION: Oatey Purple Primer Cleaner is a purple-tinted primer/cleaner recommended for use with PVC and CPVC pipe and fittings. Purple Primer Cleaner is formulated to remove dirt and oil from the surface of the piping, as well as soften the piping in preparation for solvent welding. Purple pigment provides verification that primer has been applied to the pipe surface. This product is compliant with California South Coast Air Quality Management District (SCAQMD) Rule 1168 and Ozone Transport Commission (OTC) regulations for Volatile Organic Compound emission levels. **Note: This product is not for use in a system using or being tested by compressed air or gases.**

Lo-VOC SCAQMD 1168/316A Compliant

INGREDIENTS (CAS Number)

Acetone (67-64-1)
Cyclohexanone (108-94-1)
Methyl Ethyl Ketone (78-93-1)
Tetrahydrofuran (109-99-9)
Red Dye (4477-79-6)
Violet Dye (81-48-1)

PHYSICAL/CHEMICAL PROPERTIES

Appearance	Purple Liquid
Density	6.78 ± 0.2 lbs/gallon
Shelf Life	3 years from manufacture date

Maximum VOC per SCAQMD 1168/316A or BAAQMD Method 40: 550 g/L

- [x] No Exception Taken
- [ ] Approved as Noted
- [ ] Rejected
- [ ] Revise and Resubmit

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Date: 01/08/2021 By: Gary Iwata

PRODUCT NUMBER	SIZE	PACK	CARTON WEIGHT
30780	4 oz.	24	8 lbs.
30783	8 oz.	24	14 lbs.
30796	16 oz	24	25 lbs.
30806	32 oz.	12	24 lbs.
30768	Gallon	6	46 lbs.

DIRECTIONS FOR USE

Read all directions carefully before using this product.
• Do not breathe vapors. Use only in well ventilated area. If forced air ventilation is used, be sure it does not cause a fire hazard from solvent vapors. If adequate ventilation cannot be provided, wear a NIOSH-approved respirator for organic solvents. • Do not use or store near heat, sparks, or flames. Do not smoke, eat or drink when using. Do not take internally. Vapors may accumulate in low places and may ignite explosively. • Store and use at temperatures between -15ºF and 110ºF. At temperatures outside of this range, special care must be taken to prepare good joints and prevent exposures to solvents. • Stir or shake before using; if jelly-like, don't use. Keep container closed when not in use. • Avoid eye and skin contact - wear safety glasses with side shields and wear rubber gloves. • **HANDLE WITH CARE! WILL STAIN MOST MATERIALS AND SURFACES.** • Do not thin. • **Verify with local building codes that the use of Primer Cleaner is permitted.**

1. Square pipe ends and remove all burrs and dirt.
2. Check dry fit of pipe and fitting. Pipe should easily go 1/3 of the way into the fitting. If the pipe bottoms, it should be snug.
3. Use a suitable applicator at least 1/2 the size of the pipe diameter. For larger size pipe systems use a natural bristle brush or roller.
4. Apply thoroughly to outside surface of the pipe to the depth of the fitting and inside of the fitting socket.
5. Use appropriate solvent cement for the pipe being joined. DO NOT TEST WITH AIR.

This product is not for use with caustic or acidic chemical solutions. Consult Oatey Technical Department for more information.

PRECAUTIONS

Read all information carefully before using this product.

DANGER: EXTREMELY FLAMMABLE. VAPORS MAY CAUSE FLASH FIRES. MAY IRRITATE EYES AND SKIN. VAPOR HARMFUL. MAY IRRITATE RESPIRATORY TRACT AND CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. HARMFUL OR FATAL IF SWALLOWED.

May cause irritation to eyes, skin, and nose, throat, and respiratory tract. May cause coughing, sore throat, difficulty breathing, headache, dizziness, nausea. Long term repeated overexposures to solvents may cause damage to the brain, nervous system, reproductive system, respiratory system, mucous membranes, liver, and kidneys. **KEEP OUT OF REACH OF CHILDREN.**
FIRST AID: If swallowed, **DO NOT INDUCE VOMITING.** Drink water and call a doctor or poison control center immediately. This product may be aspirated into the lungs and cause chemical pneumonitis, a potentially fatal condition. If contact with eyes, flush with water for 15 minutes and seek medical attention if irritation persists. If contact with skin, wash with soap and water. If inhaled and ill feelings develop, get fresh air and obtain medical attention if ill feelings persist. **FOR EMERGENCY FIRST AID INSTRUCTIONS CALL 1-877-740-5015.**
FIRE: Use dry chemical, foam, or carbon dioxide extinguisher. Water spray may be applied to reduce potential vapors or for cooling. Burning liquid extinguished with water will float and may re-ignite on surface of water.
SPILLS: Remove all sources of ignition and ventilate area. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with absorbent material. Put absorbent material in covered, labeled metal containers. Dispose of in accordance with local regulations.

A fire or explosion may result if dry granular calcium hypochlorite is used to disinfect plastic piping systems and is exposed to organic vapors found in solvent cements, cleaners or primers. Do not disinfect piping system with dry granules. Do not store dry granular calcium hypochlorite near solvent cements, cleaners or primers. DO NOT REUSE EMPTY CONTAINER. KEEP OUT OF REACH OF CHILDREN.

Refer to material safety data sheet for more information.

Before purchase and use of a product, review the product application and be certain the product, installation and use will be in compliance with any applicable codes and regulations.

Oatey®
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www.oatey.com

TECHNICAL SPECIFICATION

REGULAR CLEAR PVC SOLVENT CEMENT

Quality ISO 9001 System

TECHNICAL SPECIFICATION: Oatey Regular Bodied Clear PVC Solvent Cement is recommended for solvent welding PVC pipe and fittings up to 4" diameter Schedule 40 and 2" diameter Schedule 80 with interference fit. Regular Clear Solvent Cement can be used for potable water, sewer and drain, waste and vent systems. This product is compliant with California South Coast Air Quality Management District (SCAQMD) Rule 1168 and Ozone Transport Commission (OTC) regulations for Volatile Organic Compound emission levels. **Note: This product is not for use in a system using or being tested by compressed air or gases.**

Lo-VOC SCAQMD 1168/316A Compliant

INGREDIENTS (CAS Number)

Acetone(67-64-1)
Cyclohexanone (108-94-1)
Methyl Ethyl Ketone (78-93-3)
PVC Resin (9002-86-2)
Tetrahydrofuran (109-99-9)

LISTINGS

NSF Standard 61 for PW, DWV, SEWER

IAPMO Listed

Meets ASTM Standard D 2564

PHYSICAL/CHEMICAL PROPERTIES

Appearance	Clear Liquid
Viscosity	min. 90 cps @ 73° F ± 2° F
Density	7.47 ± 0.2 lbs/gallon
Lap Shear Strength (minimum per ASTM Standards)	
2 hours	250 psi
16 hours	500 psi
72 hours	900 psi
Set Up Time	
30° F to 50° F	6 – 7 minutes
50° F to 70° F	4 – 5 minutes
70° F to 90° F	1 – 3 minutes
Shelf Life	3 years from manufacture date

Maximum VOC per SCAQMD 1168/316A or BAAQMD Method 40: 510 g/L

☒ No Exception Taken
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Manhard Consulting, Ltd.

Date: 01/08/2021 By: Gary Iwata

PRODUCT NUMBER	SIZE	PACK	CARTON WEIGHT
31012	4 oz.	24	8 lbs.
31013	8 oz.	24	15 lbs.
31014	16 oz.	24	28 lbs.
31015	32 oz.	12	27 lbs.
31016	Gallon	6	50 lbs.

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1. Square pipe ends and remove all burrs and dirt.
2. Check dry fit of pipe and fitting. Pipe should easily go 1/3 of the way into the fitting. If the pipe bottoms, it should be snug.
3. Use a suitable applicator at least 1/2 the size of the pipe diameter. For larger size pipe systems use a natural bristle brush or roller.
4. Clean pipe and fitting with a listed primer.
5. Apply liberal coat of cement to pipe to the depth of the socket; leave no uncoated surface.
6. Apply a thin coat of cement to inside of fitting; avoid puddling of cement. Puddling can cause weakening and premature failure of pipe or fitting. Apply a second coat of cement to the pipe.
7. Assemble parts QUICKLY. Cement must be fluid. If cement surface has dried, recoat both parts.
8. Push pipe FULLY into fitting using a 1/4 turning motion until pipe bottoms.
9. Hold pipe and fitting together for 30 seconds to prevent pipe push-out – longer at low temperatures. Wipe off excess.
10. Allow 15 minutes for good handling strength and 2 hours cure time at temperatures above 60ºF before hydrostatic pressure testing up to 180 psi. Longer cure times may be required at temperatures below 60ºF or with pipe diameters over 3". DO NOT TEST WITH AIR.

This product is not for use with caustic or acidic chemical solutions. Consult Oatey Technical Department for more information.

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