High Performance Polypropylene Pipe for Slipline Applications



Slipline Applications

SaniTite[®] HP provides an easy, economical solution for sewer casings or to rehabilitate deteriorated CMP and RCP culverts by providing:

- Sizes available in 300-1500 mm (12"-60") diameters. See specifications on page 6 for details per diameter
- Standard pipe lengths are 6 m (20') for all pipe diameters with alternative pipe lengths of 4 m (13') for 300-1200 mm (12"-48") diameters and 5 m (16.3') for 1500 mm (60") diameter
- In-field technical support for these applications directly from ADS
- Watertight joint meeting the requirements of ASTM D3212

High Performance

ADS polypropylene (HP) pipe is quickly becoming the preferred method for culvert rehabilitation. The advanced polypropylene resin technology and exclusive triple wall design provide enhanced pipe stiffness, beam strength and joint integrity, making SaniTite HP the logical and most economical choice for your next slipline project.

Industry Leading Joints

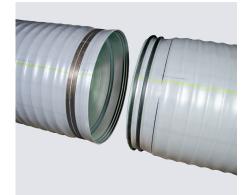
SaniTite HP boasts two gaskets and a polymer-reinforced inline bell to ensure the best joint possible for reline projects. SaniTite HP joints are easy to install and are able to withstand normal grout pressures associated with pipe rehabilitation projects. The inline joint design creates an outer-diameter joint profile, resulting in more economical installations.

Gasketed integral bell & spigot joints meet the requirements of CSA B182.13 or ASTM 2764.

Superior Hydraulics and Durability

ADS SaniTite HP liner systems improve hydraulics over deteriorated CMP or RCP. SaniTite HP liner systems are highly resistant to abrasion and are not susceptible to chemical attack or corrosion for a long-lasting solution to rehabilitate existing aging infrastructure.

	DUAL WALL PROFILE				TRIPLE WALL PROFILE					
Nominal Diameter	300	375	450	600	750	900	1050	1200	1500	
mm (in.)	(12)	(15)	(18)	(24)	(30)	(36)	(42)	(48)	(60)	
Average Pipe O.D.	368	447	538	711	899	1054	1199	1374	1705	
mm (in.)	(14.5)	(17.6)	(21.2)	(28.0)	(35.4)	(41.5)	(47.4)	(54.1)	(67.1)	
Average Pipe P.S.,	806	593	593	593	551	482	400	400	365	
kPa (pii)	(117)	(86)	(86)	(86)	(80)	(70)	(58)	(58)	(53)	





Ease of Installation

The lightweight pipe and triple wall design exclusive to SaniTite HP reduces friction and allows for longer uninterrupted pushing distance with lighter construction equipment. SaniTite HP is available in 4 m (13') lengths for 300-1200 mm (12"-48") diameters and a 5 m (16.3') length for 1500 mm (60") diameter. In addition, SaniTite HP is available in a standard 6 m (20') length for 300-1500 mm (12"-60") diameter to suit the changing needs of various projects. Custom pipe lengths are available upon request.

Nominal Inside Diameter mm (in)	Max Thrust Force kN (lbs)	Push Length * m (ft)			
300 (12)	6.7 (1,500)	121 (400)			
375 (15)	8.9 (2,000)	121 (400)			
450 (18)	13.3 (3,000)	121 (400)			
600 (24)	20.0 (4,500)	121 (400)			
750 (30)	20.0 (4,500)	121 (400)			
900 (36)	40.0 (9,000)	91 (300)			
1050 (42)	48.9 (11,000)	91 (300)			
1200 (48)	53.4 (12,000)	91 (300)			
1500 (60)	71.2 (16,000)	91 (300)			



SaniTite HP Vs. CMP Flow Rates

Diameter in (mm)	CMP (n=0.024)	SaniTite HP (n=0.012)
300 (12)	0.43	0.86
375 (15)	0.78	1.56
450 (18)	1.27	2.54
600 (24)	2.74	5.48
750 (30)	4.97	9.93
900 (36)	8.08	16.15
1050 (42)	12.18	24.37
1200 (48)	17.39	34.79
1500 (60)	31.54	63.07

Values based on 0.05% slope for both pipes Flow is in cubic feet per second Contact ADS to review specific installation parameters







The Advantages Are Clear

- Advanced Polypropylene Resin
- Excellent Pipe Stiffness (>46 pii)
- Innovative Triple Wall Profile
- Superior Joint Performance
- Meets National Highway Design Standards

Restores Hydraulics

- Best Economic Value
- Resistant to Abrasion
- Corrosion Resistant
- Faster Installation

National Standards

Pipe

 CSA B182.13 or ASTM F2764, Standard Specification for 150-1500 mm (6"-60") Polypropylene (PP) Corrugated Double and Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications

Gaskets

ASTM F477, Elastomeric Seals (Gaskets) for Joining Plastic Pipe

Pipe Stiffness Test

ASTM D2412, Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading

Watertight Joint Lab Test

ASTM D3212, Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals





SaniTite® HP Slipline Pipe Specification

Scope

This specification describes 300 to 1500 mm (12"-60") SaniTite HP for use in Sliplining applications.

Pipe Requirements

300-600 mm (12"–24") SaniTite HP shall have a smooth interior and annular exterior corrugations and 750-1500 mm (30"–60") SaniTite HP shall have a smooth interior and exterior surfaces with annular inner corrugations.

- 750-1500 mm (12"-60") pipe shall meet CSA B182.13 and ASTM F2764
- 300-1500 mm (12"-60") pipe shall have a minimum pipe stiffness of 46-pii when tested in accordance with ASTM D2412.
- Manning's "n" value for use in design shall be 0.012.

Joint Performance

Pipe shall be joined with a gasketed integral bell & spigot joint meeting the requirements of CSA B182.13 and ASTM 2764.

300-1500 mm (12"–60") shall be watertight according to the requirements of ASTM D3212. Spigot shall have two gaskets meeting the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gaskets are free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.

300-1500 mm (12"-60") diameters shall have a reinforced bell with a polymer composite band installed by the manufacturer.

Fittings

Fittings shall conform to CSA B182.13 or ASTM F2764. Bell & spigot connections shall utilize a spun-on, welded or integral bell and spigot with gaskets meeting ASTM F477. Fitting joints shall meet the watertight joint performance requirements of ASTM D3212.

Field Pipe and Joint Performance

To assure watertightness, field performance verification may be accomplished by testing in accordance with ASTM F1417 or ASTM F2487. Appropriate safety precautions must be used when field-testing any pipe material.

Material Properties

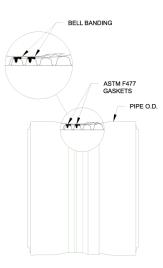
Polypropylene compound for pipe and fitting production shall be an impact modified copolymer meeting the material requirements of CSA B182.13 or ASTM F2764.

Installation

For unloading, handling, and installation procedure information refer to Technical Notes 5.14 and 5.18. The grouting of annular voids is to be done in accordance with the project plans/specifications and the manufacturer's recommendations which can be found in Technical Notes 5.14 and 5.18. Contact your local ADS representative or visit our website at www.adspipe.com for a copy of the latest Technical Notes.

Pipe Dimensions

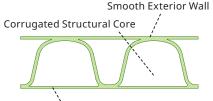
Nominal Diameter	300	375	450	600	750	900	1050	1200	1500
mm (in.)	(12)	(15)	(18)	(24)	(30)	(36)	(42)	(48)	(60)
Average Pipe I.D.	307	378	457	612	765	907	1062	1201	1506
mm (in.)	(12.1)	(14.9)	(18.0)	(24.1)	(30.1)	(35.7)	(41.8)	(47.3)	(59.3)
Average Pipe O.D.	368	447	538	711	899	1054	1199	1374	1705
mm (in.)	(14.5)	(17.6)	(21.2)	(28.0)	(35.5)	(41.5)	(47.4)	(54.1)	(67.1)



30" - 60" (750-1500 MM)

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

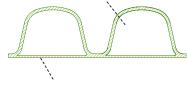
Innovative Triple Wall Design 750-1500 mm (30"–60") Diameters



Smooth Interior Wall

Dual Wall Design 300-600 mm (12"–24") Diameters

Corrugated Structural Wall



Smooth Interior Wall







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