

ADS SANITITE® HP (12”-60”) SLIPLINE PIPE SPECIFICATION

SCOPE

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

PIPE REQUIREMENTS

- ADS 12” – 24” (300 - 600 mm) SaniTite HP shall have a smooth interior and annular exterior corrugations and ADS 30” – 60” (750 to 1500 mm) SaniTite HP shall have a smooth interior and exterior surfaces with annular inner corrugations.
- 12” – 60” (750 - 1500 mm) pipe shall meet ASTM F2764* & AASHTO M330
 - 12” – 60” (300 - 1500 mm) 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 ASTM 2764* and AASHTO M330.

12” – 60” (300 - 1500 mm) 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.

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

FITTINGS

Fittings shall conform to ASTM F2764* and AASHTO M330. 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 ASTM F2764* and AASHTO M330.

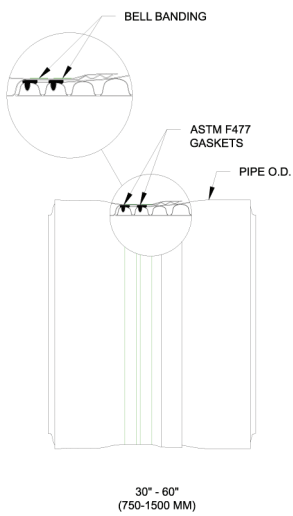
INSTALLATION

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.ads-pipe.com for a copy of the latest Technical Notes.

PIPE DIMENSIONS

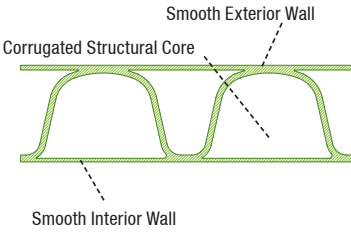
Nominal Diameter in. (mm)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)
Average Pipe I.D. in. (mm)	12.1 (307)	14.9 (378)	18.0 (457)	24.1 (612)	30.1 (765)	35.7 (907)	41.8 (1062)	47.3 (1201)	59.3 (1506)
Average Pipe O.D. in. (mm)	14.5 (368)	17.6 (447)	21.2 (538)	28.0 (711)	35.4 (899)	41.1 (1044)	47.2 (1199)	53.8 (1367)	66.5 (1689)

* ASTM F2736 has been incorporated into the latest version of ASTM F2764.

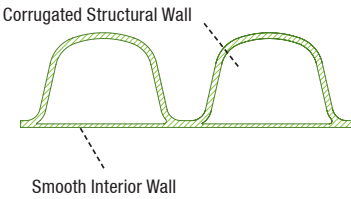


Joint configuration & availability subject to change without notice. Product detail may differ slightly from actual product appearance.

Innovative Triple Wall Design
30”–60” Diameters



Dual Wall Design
12”–24” Diameters



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.

National Standards

Pipe

- ASTM F2764, Standard Specification for 6” - 60” (150 mm - 1500 mm) Polypropylene (PP) Corrugated Double and Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications
- AASHTO M330, Polypropylene Pipe 12” - 60” (300 mm - 1500 mm) diameter

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



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High Performance
Polypropylene Pipe for
Slipline Applications



THE MOST **ADVANCED** NAME IN WATER MANAGEMENT SOLUTIONS®



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

High Performance

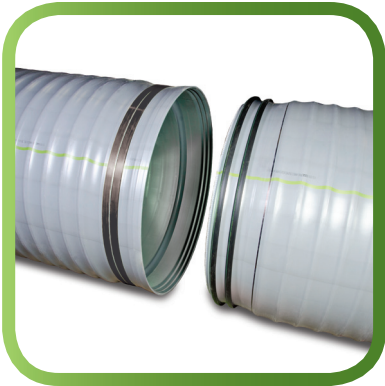
ADS polypropylene (HP) pipe is quickly becoming the preferred method for culvert rehabilitation. The advanced polypropylene resin technology and exclusive triple wall design provide enhanced pipe stiffness, beam strength and joint integrity, making SaniTite HP the logical and most economical choice for 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 ASTM 2764*.

* ASTM F2736 has been incorporated into the latest version of ASTM F2764.



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 13’ (4 m) lengths for 12” - 48” (300 mm - 1200 mm) diameters and a 16.3’ (5 m) length for 60” (1500 mm) diameter. In addition, SaniTite HP is available in a standard 20’ (6 m) length for 12” - 60” (300 mm - 1500 mm) diameter to suit the changing needs of various projects. Custom pipe lengths are available upon request.

NOMINAL INSIDE DIAMETER in (mm)	MAX THRUST FORCE lbs (kN)	PUSH LENGTH *ft (m)
12 (300)	1,500 (6.7)	400 (121)
15 (375)	2,000 (8.9)	400 (121)
18 (450)	3,000 (13.3)	400 (121)
24 (600)	4,500 (20.0)	400 (121)
30 (750)	4,500 (20.0)	400 (121)
36 (900)	9,000 (40.0)	300 (91)
42 (1050)	11,000 (48.9)	300 (91)
48 (1200)	12,000 (53.4)	300 (91)
60 (1500)	16,000 (71.2)	300 (91)

*NOTES: Push length is provided as general design guidance. Allowable push lengths should be calculated based on the project’s installation conditions using the maximum thrust force values listed in this table. Consult ADS for project specific design assistance.

Nominal Pipe Diameter in. (mm)	DUAL WALL PROFILE				TRIPLE WALL PROFILE				
	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)
Average Pipe O.D. in. (mm)	14.5 (368)	17.6 (447)	21.2 (538)	28.0 (711)	35.4 (899)	41.1 (1044)	47.2 (1199)	53.8 (1367)	66.5 (1689)
Pipe Stiffness, P.S., pii (kPa)	117 (806)	86 (593)	86 (593)	86 (593)	80 (551)	70 (482)	58 (400)	58 (400)	53 (365)



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