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Sanitary Sewer Pipe

HIGH PERFORMANCE ENGINEERED MATERIALS

ADS SaniTite pipe is made from virgin High Density Polyethylene (HDPE) material, which is arguably the best material to withstand abrasion, and corrosive attacks from acidic and alkaline soils as well as the harsh chemicals found in industrial waste and municipal sewers, alternate materials such as PVC compounds manufactured in accordance with ASTM D1784 are allowed to use fillers (typically crushed limestone), which reduce the virgin component's long-term strength properties and impact strength capability. HDPE specifications have no allowance for fillers or recycled material when conforming to ASTM D3350. Virgin material assures the physical properties meet the minimum classification of 435400C as defined and described in ASTM D3350. This assures impact strength and long-term service life for the tough, real world environment of sanitary sewer.

ADVANCED ENGINEERED JOINT PERFORMANCE

The ADS patented composite joint system is used to assure long-term watertightness. Joint tightness exceeds the minimum requirement of ASTM D3212. The composite jointing system not only meets the laboratory test of ASTM D3212 but has been shown to provide continuous watertight performance for the over 100-year life of the system. At the heart of success for the jointing system is the reinforced bell-and-spigot technology.

CONTRACTOR'S CHOICE FOR CONSTRUCTION

High performance HDPE assures owners and contractors of the structural integrity of the ADS SaniTite pipe. This all adds up to a more installation friendly pipe.

QUALITY ENGINEERING AND MANUFACTURING

ADS sanitary sewer pipe uses state-of-the-art seamless construction with annular corrugations which provide superb structural integrity. Some manufacturers use helically wrapped thermoplastic pipe technology, which provides opportunity for seam separation and splitting. Additionally, ADS sanitary sewer pipe has integral bells and spigots formed by continuous extrusion without the use of postproduction welding. This tough, highly engineered product is constructed with higher performance material built to withstand the rigors of the installed environment and handle impacts well in excess of its rivals.

OUTSTANDING HYDRAULICS IN REAL APPLICATIONS

ADS sewer pipe is a dual wall product with a smooth waterway. Advanced material technology in combination with co-extruded liners translate into smooth liners. With most EPA design criteria dictating a Manning's coefficient consistent with that of RCP, HDPE offers a smooth liner. Typical in-service field conditions result in a design Manning's coefficient of not greater than 0.012.

COMPLETE LINE OF FITTINGS AND ACCESSORIES

In addition to a superb pipe product, ADS offers a complete line of fittings, manhole connection adapters, and accessories.



Advanced Drainage Systems, Inc.
4640 Trueman Blvd. Hilliard, OH 43026
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The Most **Advanced** Name in Drainage Systems®



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TOUGH PIPE FOR A TOUGH ENVIRONMENT

SaniTite Sanitary Sewer Pipe delivers the features that engineers, contractors and municipalities demand – durability, performance, handling, toughness during installation and simplified field fabrication. With over 40 years of experience, ADS products have an established reputation for quality and performance! Now that reputation is available in sanitary sewer pipe.

Ten years of field trials, research and development have resulted in a High Density Polyethylene (HDPE) sanitary pipe that is a cost-effective alternative to traditional materials. Because a watertight joint is critical in sanitary applications to prevent water infiltration and sewer exfiltration, the ADS patented reinforced bell-and-spigot design is necessary. The joint has been field proven in watertight storm drainage, low head pressure applications, and sanitary sewer applications. To meet the deeper burial depths of sanitary sewer lines, a flexible pipe provides the best structural system. In fact, the high performance resins that SaniTite utilizes are 100% virgin HDPE Material and are designed for a minimum 100 year design life. Available in sizes from 30" to 60", SaniTite is ideal for industrial and municipal sanitary trunk and transmission lines.



- 100 YEAR DESIGN LIFE
- PATENTED BELL-AND-SPIGOT WATERTIGHT JOINT

ADS SANITITE SEWER PIPE SPECIFICATION

SCOPE

This specification describes 30" - 60" (750 - 1500mm) ADS SaniTite Pipe for use in gravity flow applications, such as industrial wastewater and municipal sanitary sewers.

PIPE REQUIREMENTS

ADS SaniTite Pipe shall have smooth interior and annular exterior corrugations. 30" - 60" (750 - 1500mm) pipe diameters shall meet all the requirements of ASTM F2306.

HYDRAULICS

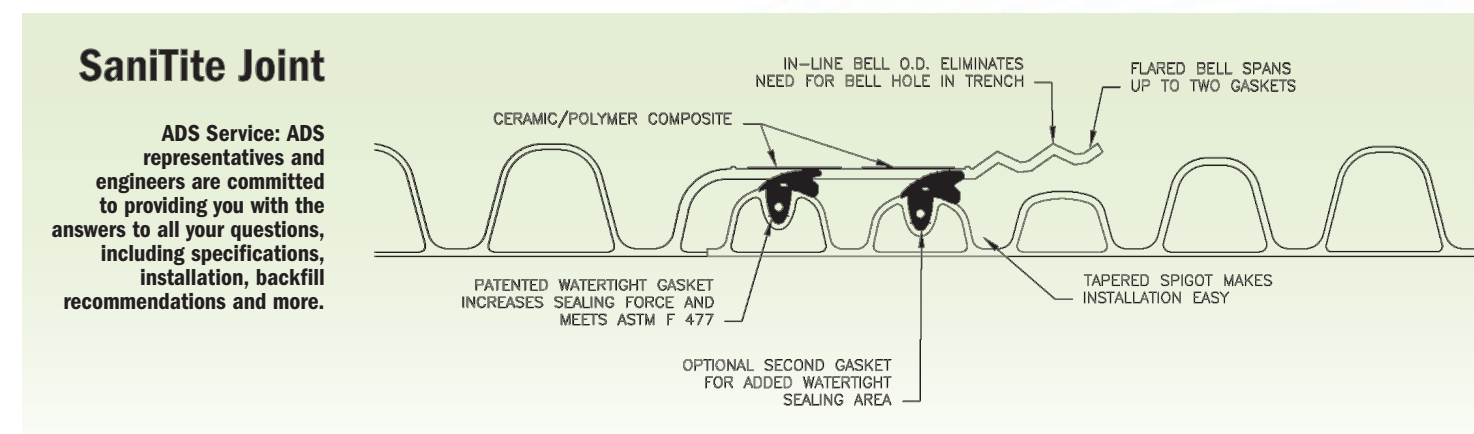
A Manning's coefficient of not less than 0.012 shall be used for design.

JOINT PERFORMANCE

Pipe shall be joined with the ADS SaniTite composite joint meeting or exceeding the short-term test requirements of ASTM D3212.

30" - 60" (750 - 1500mm) diameters shall have a reinforced bell-and-spigot. The reinforced bell shall include bell reinforcement by means of multiple ceramic polymer wraps installed by the manufacturer. The spigot shall have two gaskets which can be fully inserted into the bell.

Gaskets shall be made of polyisoprene meeting the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.



FIELD PIPE AND JOINT PERFORMANCE TESTING

To assure watertightness, field performance verification may be accomplished by testing in accordance with ASTM F1417 or ASTM C969. Appropriate safety precautions must be used when field-testing any pipe material. For long runs of pipe, joint to joint testing should be considered.

FITTINGS

Couplings, elbows, reducers, tees, wyes, laterals and other fittings shall be capable of withstanding all operating conditions when installed. Fittings may be molded or fabricated. Fabricated fittings shall be welded at all accessible interior and exterior junctions.

MATERIAL REQUIREMENTS

Pipe shall be made of virgin polyethylene resins that conform to ASTM F2306. The pipe shall be made of a material meeting the requirements of cell classification 435400C or higher in accordance with ASTM D3350. Average NCLS test specimen results must exceed 24 hours with no test result less than 17 hours.

INSTALLATION

Installation shall be in accordance with ASTM D2321, with the exception that minimum depth for backfill over the top of the pipe shall be 1 ft. (0.3 m), for 30" - 48" (750 - 1200mm) diameters, and 2 ft. (0.6 m) for 60" (1500mm) diameter.

PIPE DIMENSIONS

Pipe dimensions shall be as shown in Table 1 below:

ADS SaniTite Sanitary Sewer Pipe				
	Nominal Diameter, in. (mm)			
Pipe I.D., in. (mm)	30 (750)	36 (900)	48 (1200)	60 (1500)
Pipe O.D., in. (mm)	35.1 (9762)	41.7 (1059)	53.6 (1361)	66.3 (1684)
Inner Liner Thickness minimum in. (mm)	0.07 (1.8)	0.095 (2.4)	0.105 (2.7)	0.105 (2.7)
Min Pipe Stiffness minimum in. (mm)	28 (195)	22 (150)	18 (125)	14 (95)

*Values provided are for reference purposes only
*Check with sales representative for availability by region.

FEATURES AND BENEFITS

- Patented reinforced bell-and-spigot maintains a sure seal pipe joint.
- HS-25 (Highway traffic loads) rated with minimal cover.
- Tough, high impact resistant HDPE, for less breakage than conventional sewer products.
- Available in 20.5' (6.24m) lengths for shallow burial and shorter lengths to accommodate trench boxes.
- Lightweight, easy to handle, easily cut in field.
- Bell-and-spigot joint for ease and speed of connection.
- High UV resistance for hassle-free site storage.
- Smooth liner for greater hydraulics.

