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 corrosion attacks from acids and alkaline soils as well as the brine 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 stringent classifications of ASTM D3350 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.

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 tailg to withstand the rigors of the installed environment and handle impacts well in response to the loads.

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 flow. With most EPA design criteria dictating a Manning’s coefficient consistent with that of RCP, HDPE offers a smooth flow. 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.
The Most

60”, SaniTite is ideal for industrial and municipal sanitary trunk and transmission lines. Ten years of field trials, research and development have resulted in an established reputation for quality and performance! Now that contractors and municipalities demand – durability, performance, HDPE Material and are designed for a minimum 100 year design life. Available in sizes from 24” to 60” (600 - 1500mm) 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.

Pipe shall be made of a material meeting the requirements of ASTM F2306. The pipe shall be joined by 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 exfiltration, the ADS patented reinforced bell-and-spigot design is necessary. The joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.

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 of 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 F1167 or ASTM D696. Appropriate safety precautions must be used when backfilling in a pipe trench. For long runs of pipe, joint to joint testing should be considered.

FITTINGS
Couplings, elbows, tees, wyes, tees, and all other fittings shall be capable of withstand ing any operating condition when assembled. Fittings may be fabricated or fabricated. Fabricated fittings shall be welded on all accesssories internal and external junctions.

MATERIAL REQUIREMENTS
Pipe shall be made of high performance resins that conform to ASTM F2306. The pipe shall be made of high performance resins that conform to ASTM F2306. The pipe shall be welded on all accesssories internal and external junctions.

INSTALLATION
Installation shall be in accordance with ASTM F1167, with the exception that minimum depth for backfill on top of the pipe shall be in. (1.8) for 24” - 48” (600 - 1200mm) diameters, and 2 ft. (0.6 m) for 60” (1500mm) diameters.

PIPEDIMENSIONS
Pipe dimensions shall be as shown in Table 1 below:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>24&quot; (600)</td>
<td>27.1</td>
<td>24</td>
<td>0.07</td>
<td>SaniTite Sanitary Sewer Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30&quot; (750)</td>
<td>35.1</td>
<td>30</td>
<td>0.07</td>
<td>SaniTite Sanitary Sewer Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36&quot; (900)</td>
<td>41.7</td>
<td>36</td>
<td>0.095</td>
<td>SaniTite Sanitary Sewer Pipe</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48&quot; (1200)</td>
<td>53.6</td>
<td>48</td>
<td>0.105</td>
<td>SaniTite Sanitary Sewer Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60&quot; (1500)</td>
<td>66.3</td>
<td>60</td>
<td>0.105</td>
<td>SaniTite Sanitary Sewer Pipe</td>
<td></td>
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</table>

Sanitary Sewer Pipe

Sanitary Sewer Pipe

Sanitary Sewer Pipe

Sanitary Sewer Pipe
**Field Pipe and Joint Performance Testing**

To ensure watertightness, field performance verification may be accomplished by testing in accordance with ASTM F1417 or ASTM D3350. Appropriate safety precautions must be used when field-testing a pipe sample. For long runs of pipe, joint to joint testing should be considered.

**Fittings**

Clamps, elbows, tees, wyes, laterals, and other fittings shall be capable of withstanding all operating conditions when assembled. 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 high-performance thermoplastic materials that conform to ASTM D3212. The pipe shall be made of a material meeting the requirements of ASTM F2306. Virgin HDPE resin shall be used and pipe ends shall be cut at a 45° angle 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 pipe stiffness (KN/m²) (235) (195) (150) (125) (95) shall be maintained in accordance with ASTM D2321. A Manning’s coefficient of not less than 0.012 shall be used for design.

**Sanitary Sewer Pipe Specification**

**Scope**

This specification describes 24” - 60” (600 – 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 amicable external corrugations. 24” - 60” (600 - 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**

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

**Field Testing**

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

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

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**The Most Advanced® Name in Drainage Systems®**

**SaniTite® Tough Tested® Trusted**

**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 established reputations for quality and performance that reputation is available in sanitary sewer pipe.

Ten years of field trials, research and development have resulted in an established reputation for quality and performance! Now that contractors and municipalities demand – durability, performance, handling toughness during installation and simplified field fabrication. With over 40 years of experience, ADS products have established reputations for quality and performance that reputation is available in sanitary sewer pipe.

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**HYDRAULICS**

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

**JOIN PERFORMANCE**

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

**GASKETS**

Gaskets shall be made of polyisoprene meeting the requirements of ASTM F477. Gaskets shall be manufactured. 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 manufacturer. The spigot shall have two gaskets which can be fully inserted into the bell.

**FIELD PIPE AND JOINT PERFORMANCE TESTING**

To assure watertightness, field performance verification may be accomplished by testing in accordance with AWWA F1107 or AWWA C600. Appropriate safety precautions must be used when backfilling or laying pipe. (Note: For long runs of pipe, joint to joint testing should be considered.)

**FITTINGS**

Couplings, elbows, tees, wyes, boxes, and other fittings shall be capable of withstanding any operating conditions when assembled. Fittings may be molded or fabricated. Fabricated fittings shall be welded to anode. All anode material and exterior surfaces.

**MATERIAL REQUIREMENTS**

Pipe must be made of high performance virgin polyethylene resin that conforms to ASTM F2306. The pipe shall be made of a material meeting the requirements of class classification 435400C as rigid in accordance with AWWA C600. 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 shall be 1 ft. (0.3 m) for 60” (1500mm) pipe diameters and 2 ft. (0.6 m) for 60” (1500mm) diameters.

**PIPEDIMENSIONS**

Pipe diameters shall be as shown in Table 1 below:

<table>
<thead>
<tr>
<th>Nominal Diameter, in. (mm)</th>
<th>Pipe O.D., in. (mm)</th>
<th>Pipe I.D., in. (mm)</th>
<th>Min Pipe Stiffness</th>
<th>Inner Liner Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>24” (600)</td>
<td>27.1 (719)</td>
<td>24 (600)</td>
<td>34</td>
<td>0.07 (1.8)</td>
</tr>
<tr>
<td>30” (750)</td>
<td>35.1 (976)</td>
<td>30 (750)</td>
<td>28</td>
<td>0.07 (1.8)</td>
</tr>
<tr>
<td>36” (900)</td>
<td>41.7 (1059)</td>
<td>36 (900)</td>
<td>22</td>
<td>0.095 (2.4)</td>
</tr>
<tr>
<td>48” (1200)</td>
<td>53.6 (1361)</td>
<td>48 (1200)</td>
<td>18</td>
<td>0.105 (2.7)</td>
</tr>
<tr>
<td>60” (1500)</td>
<td>66.3 (1684)</td>
<td>60 (1500)</td>
<td>14</td>
<td>0.105 (2.7)</td>
</tr>
</tbody>
</table>

**SaniTite Joint**

**100 YEAR DESIGN LIFE**

**PATENTED BELL-AND-SPIGOT WATERTIGHT JOINT**

**EFICICIENT USE OF MATERIAL**

Pipe dimension shall be as shown in Table 1 below.
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 corrosion attacks from acids 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 components long-term strength properties and impact strength capability. HDPE specifications have no allowance for fillers or recycled material when conformance 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.

QUALITY ENGINEERING AND MANUFACTURING

ADS sanitary sewer pipe uses state of the art seamless extrusions with similar 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 bell and spigot formed by continuous extrusion without the use of post-extrusion welding. This tough, highly engineered product is constructed with higher performance material 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 lines. Both exact EPA design criteria dictating a Manning’s coefficient consistent with that of RCP, HDPE offers a smooth lining. 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.
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CONTRACTOR’S CHOICE FOR CONSTRUCTION

High performance HDPE assures owners and contractors of the structural integrity of the ADS SaniTite pipe. This 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 superior structural integrity. Some manufacturers use helically wrapped thermoplastic pipe technology, which provides for seam separation and splitting. Additionally, ADS sanitary sewer pipe has integral bell and spigot formed by continuous extrusion without the use of postextrusion welding. This tough, highly engineered product is constructed with higher performance material than to withstand the rigors of the installed environment and handle impacts well in excess of its rivals.

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