MATERIALS DETAILS

Prepared for

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

ADS Smooth Interior Corrugated PE Pipe

REFERENCE NUMBER: NY A/H 3/08

March 2008

IMPERIAL VERSION
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MATERIALS DETAILS - IMPERIAL VERSION

**ADS Smooth Interior Corrugated PE Pipe**

PREPARED March, 2008
UPDATED August, 2015

**MANUFACTURING PLANTS**

- **ADS - Ludlow**
  Stonybrook Industrial
  Park 58 Wyoming Street
  Ludlow, MA 01056
  (800) 733-3555

- **ADS - Muncy**
  Muncy Industrial Park
  Muncy, PA 17756
  (800) 733-7680

- **ADS - Wooster**
  Old Route 30 West
  Wooster, OH 44691
  (800) 733-4950

- **ADS - Findlay**
  12370 Jackson TR 172
  Findlay, OH 45839
  (419) 424-8222

- **ADS - Waverly**
  1 William Donnelly Pkwy
  Waverly, NY 14892
  (607) 565-3033

- **ADS - N. Springfield**
  30 Precision Dr.
  N. Springfield, VT 05150
  (802) 886-8403
PRODUCT IDENTIFICATION

Smooth interior corrugated polyethylene pipe and smooth interior perforated corrugated polyethylene underdrain pipe are manufactured by ADS. The smooth interior corrugated high density polyethylene pipe manufactured by ADS to conform to AASHTO M294 Type S and Type SP. The designation "A/H" appears on pipe at intervals of 10ft or less along with required identification markings as described in AASHTO M294.

The ADS brand is identified with a "green stripe" on black pipe.

HANDLING

ADS normally delivers pipe on specially designed drop side trailers. Drivers are trained in proper unloading procedures and will operate the trailer mechanism that controls the side gate of the trailer that opens downward and allows pipe to roll off. Assistance is required to roll pipe away from the trailer and stack it in a stockpile. Pipe must roll down the open side gate and must not be pushed off in any way that results in the pipe falling on its ends.

Palletized pipe requires contractor assistance for unloading. Pallets can be picked using nylon or cushion cable slings located at third points. Small diameter smooth interior corrugated pipe can be moved by hand. Larger diameters may require equipment assistance. Refer to the following weight table to determine which method is preferable.

<table>
<thead>
<tr>
<th>WEIGHT OF 20 FOOT LENGTH OF N-12 PIPE</th>
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<tbody>
<tr>
<td>12 in---------------------------------  64 lb</td>
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<tr>
<td>15 in---------------------------------  92 lb</td>
</tr>
<tr>
<td>18 in--------------------------------- 128 lb</td>
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<tr>
<td>24 in--------------------------------- 220 lb</td>
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<tr>
<td>30 in--------------------------------- 300 lb</td>
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<tr>
<td>36 in--------------------------------- 385 lb</td>
</tr>
<tr>
<td>42 in--------------------------------- 494 lb</td>
</tr>
<tr>
<td>48 in--------------------------------- 613 lb</td>
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<tr>
<td>60 in--------------------------------- 882 lb</td>
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</tbody>
</table>

The pipe can be moved, loaded, unloaded, or placed in the trench by use of a sling on a backhoe or excavator bucket. Use one sling at the midpoint of the pipe section if the equipment is stationary and two slings at 1/4 point and 3/4 point of the pipe for better support if the equipment will be moving. Transferring pipe from one point to another can also be done with a fork truck, loader forks, or loader bucket with the pipe sections resting across the forks or bucket for support. Do not attempt to lift or move pipe by inserting a fork in the end of the pipe. During all handling procedures pipe must not be dropped or dragged. Special attention to the ends is necessary to protect them from damage.
The pipe may be rolled as long as it is not permitted to drop or strike anything. Transportation of pipe on other than ADS trucks must be done so that pipe rests flat on the bed with no more than 25% overhang. Propping pipe sections on end in an open truck bed is not permitted. Proper handling procedures as outlined above must be followed at all times.

STORAGE

Pipe must be stockpiled on a flat surface free of rocks and debris. Chock bottom outside pipes at third points if stockpile is over three feet high. Stacked pipe should be placed with bells alternated on successive layers and the bells should overhang the layer below to prevent deforming and damaging the bells. The protective wrap on the gaskets of the spigot end should be left on the pipe until it is ready for installation. Lube, couplers, and fittings should be stored with the pipe. Couplers and fittings should be stored flat to prevent damage and misshape. Proper handling procedures for stockpiling and "stringing" pipe out along the trench area must be followed as outlined above. ADS pipe resin contains carbon black to protect it from UV radiation so it is not necessary to cover the pipe during storage or take other steps to protect it from sunlight. To facilitate inspection, stockpile height shall be a maximum of 6 feet or 3 (three) pieces, whichever is greater.

INSTALLATION

ADS pipe must be placed in the trench using proper handling techniques. Do not drop or roll the pipe into the trench. ADS pipe is joined using the following systems: split corrugated couplers, soil-tight bell/spigot joints, and watertight bell/spigot joints.

When using split corrugated couplers, temporarily attach a coupler on the end that will receive the next section so that it will not be necessary to dig out the bedding to install the coupler in the trench. Split corrugated couplers are supplied by ADS Split corrugated couplers for 42" and larger diameters are two-piece couplings supplied with plastic cable ties to connect the two pieces. Couplers from other manufacturers must not be used. All split couplers must be properly seated with no foreign material between pipe and coupler. All split couplers must engage two corrugations on each pipe end and must be centered at the joint. Pipe ends must be square and aligned so that there is no gap between the sections. The coupler can then be closed and plastic ties supplied with the coupler are threaded through holes at the split to secure the coupler. If the split coupler does not close easily, check for pipe misalignment or foreign material between pipe and coupler. Do not pull the plastic ties excessively to overcome such resistance. Pulling ties to align pipe may break ties.
The soil-tight bell/spigot, pipe will be delivered with an annular gasket factory installed in the ridge notch in the first spigot corrugation with the gasket markings facing the end of the spigot. Remove protective shrink-wrap from the gasket. With the pipe in the trench, clean the bell and spigot with a brush or cloth. Apply liberal amounts of pipe lubricant to the gasket and the inner surface of the bell with a clean brush or clean cloth. Insert the spigot squarely into the bell so that the two (2) pieces form a straight line. The pipe section must be pulled or pushed home to complete the joint. 'HOME' marks are located on the crest of the third spigot corrugation. No separations greater than 5 inches are permitted between adjoining sections of pipe. Small diameter pipe (below 24") can usually be installed by pushing the joint home by hand. For larger diameters, the preferred method is to place a nylon sling around the center of the pipe attached to a backhoe bucket and pull the joint home. Joints can also be pushed home by placing a wood block horizontally across the bell and using a pry bar driven vertically into the ground to push against the block and seat the joint. For large diameters, a backhoe bucket can be used to push against the block. Do not place the pry bar or push the backhoe bucket directly against the bell. Caution must be used with all methods since use of excessive force could damage the pipe.

The watertight bell/spigot pipe will be delivered with an annular gasket installed in the ridge notch in the first spigot corrugation. The watertight is identified by the 2" wide green band of ceramic/polymer composite fused to the exterior of the bell. To install, follow procedures listed above for soil-tight bell/spigot pipe.

All ADS pipe can be field cut by use of power saws such as cutoff saws or reciprocating blade saws or other similar equipment. Since ADS pipe requires no coating or barrier layer, it is not necessary to treat cut ends. For proper coupling, cut annular pipe in the valley between corrugations.

Field cuts for soil-tight or watertight pipe may require a transition to ADS split coupler joint system. Remove the three partial height corrugations from the spigot end, or remove the bell by cutting in the valley between the corrugations. Use a split coupler to connect plain ends of annular pipe.