



THE MOST ADVANCED NAME IN DRAINAGE SYSTEMS



**RE: TESTING OF (3) SAMPLES MUNCY 750 MM (30") DIAMETER  
SMOOTHWALL TYPE 'S' POLYETHYLENE PIPE TO AASHTO M294M-  
04 FOR THE ESC PROGRAM**

CONDITIONING: Not less than 40 hours at 23 ± 2° C (73° F)

TEST RESULTS:

**SECTION 6.1 BASIC MATERIALS**

Results:

Sample	DENSITY (g/cm <sup>3</sup> )	MELT INDEX (g/10 minutes)	CARBON
ADS	.952	.20	2.24%
TRI	.950	.22	2.03%

SPECIFICATION: Minimum Cell Class 335400C and SP-NCTL 15% 24hours  
Density .945 to .955 g/cm<sup>3</sup>  
Melt index .15 to .40 g/10 min.  
Carbon Black Content 2% minimum / 5% Maximum  
\*Compounds that have a higher cell classification in one or more properties with the exception of density are acceptable provided product requirements are met.

CONCLUSIONS: Specification is met.

**SECTION 7.1 WORKMANSHIP**

SAMPLE	RESULTS
ADS	Pass
TRI	Pass

SPECIFICATION: Free of foreign inclusions and visible defects. Inner liner shall be fused to outer corrugated wall at all internal corrugation crests.

CONCLUSIONS: Specification is met.

**SECTION 7.2 PIPE DIMENSIONS**  
**SECTION 7.2.2 WALL THICKNESS**

SAMPLE	Inner Wall Thickness
ADS	0.075"
TRI	0.086"

SPECIFICATION : The minimum inner wall thickness requirement is 1.5mm  
0.059"

CONCLUSIONS: Specification is met.

**SECTION 7.2.3 INSIDE DIAMETER**

Sample	INSIDE DIAMETER
ADS	30.09"
TRI	30.00"

SPECIFICATION: Nominal inside diameter shall not exceed 4.5% oversize or  
1.5% undersize and not more than 30mm oversize. 738.6 mm / 780.0 mm  
(29.08" / 30.71")

CONCLUSIONS: Specification is met.

**SECTION 7.4 PIPE STIFFNESS**

Sample	Orientation	Pipe Stiffness
ADS	0 / 45 / 90	35 / 35 / 35
TRI	0 / 45 / 90	32 / 34 / 35

SPECIFICATION: Minimum pipe stiffness requirement at 5% deflection is Min.  
195 kPa (28 PSI)

CONCLUSIONS: Specification is met.

**SECTION 7.5 PIPE FLATTENING**

Sample	Results
ADS	Pass
TRI	Pass

SPECIFICATIONS: No evidence of buckling, cracking, splitting or delamination. when the vertical inside diameter is reduced by 20%.

CONCLUSIONS: Specification is met.

**Section 7.6 ENVIRONMENTAL STRESS CRACKING**

Sample	Results
ADS	Pass
TRI	Pass

SPECIFICATIONS: There shall be no cracking of the pipe.

CONCLUSIONS: Specification is met.

**SECTION 7.7 BRITTLENESS**

Sample	Results
ADS	Pass
TRI	Pass

SPECIFICATION: The pipe specimens shall not crack or split.  
Five non-failures out of six impacts will be acceptable.

CONCLUSIONS: Specification is met.

**SECTION 7.8 FITTING REQUIREMENTS**

Sample	Results
ADS	Pass
TRI	Pass

SPECIFICATIONS: Pipe connections shall not separate to create a gap exceeding 5mm. (0.197") when measured between the bell and spigot portions of pipe fittings shall not crack or delaminate.

CONCLUSIONS: Specification is met.

**SECTION 11 MARKING**

Sample	MFG	SIZE	PLANT CODE	PRODUCTION DATE
ADS	ADS	30" 750mm	47 (Muncy)	03/29/06
TRI	ADS	30" 750mm	47 (Muncy)	03/29/06

SPECIFICATION: Pipe and fitting shall be marked at intervals not more than 3.5m, manufacture's name or trademark, nominal size, AASHTO M294, plant code and date of manufacture of appropriate code.

CONCLUSIONS: Specification is met.

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