

## DuroMaxx<sup>®</sup> Detention Post Installation Leak Testing Procedure

## Scope

This procedure describes acceptable methods and procedure for the leak testing of DuroMaxx<sup>®</sup> systems for 30" (750 mm) through 120" (2400 mm) nominal diameters for use in stormwater detention and other storage applications requiring a welded coupler joint.

## Joint Performance and Field Hydrostatic Testing

As determined appropriate by the civil engineer of record, field hydrostatic pressure testing shall be conducted in accordance with ASTM F2487-06 *Infiltration and Exfiltration Acceptance Testing of Installed High Density Polyethylene Pipelines* to verify water-tightness of the system. The following adjustments to ASTM F2487-06 will be considered as part of the testing process:

- A minimum conditioning period of 12 hours will be observed to enable stabilization of water temperature within the cistern. Following this conditioning period, the cistern will be refilled to appropriate level prior to beginning test period.
- The test period will be a minimum of 12 hours, rather than the 15 minute test period identified in ASTM 2487
- Water shall be filled to the maximum operating liquid level (i.e. outlet invert), not to exceed the crown of the pipe.

Joint leakage rates shall not exceed 300 gal./in. diam.mile/day for standard detention.

## Joint Performance and Field Air pressure Testing

As determined appropriate by the civil engineer of record, field hydrostatic pressure testing shall be conducted in accordance with ASTM F1417-92 *Standard test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air* to verify water-tightness of the system. The following adjustments to ASTM F1417=92 will be considered as part of the testing process:

- Section 8.1.3 :Pressure within the test section is to never exceed 3 psi
- Section 8.1.4: Regulate air supply so that the pressure is maintained between 1.5 psi and 2 psi for at least 5 min. A minimum of 1.5 psi is required
- Section 8.2.2: Test pressure to be between 1.5 psi and 2 psi.
- A 0-psi air loss in one-hour or a 0.5 psi air loss in the time calculated per the standard is considered a passing test.



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