

Recommend Approval: <u>[Signature]</u> 3-2-2012 Team Leader Date <u>[Signature]</u> 3-2-12 Division Chief Date	Maryland Department of Transportation State Highway Administration Office of Materials Technology MARYLAND STANDARD METHOD OF TESTS	
Approved: <u>[Signature]</u> 03/09/12 Director Date	PVC COATED WIRE (Gabion Wire)	MSMT 508

SCOPE:

This procedure is used to determine the uniformity and overall quality of the polyvinyl chloride (PVC) coating on wire used in the fabrication of gabions and wire baskets.

MATERIALS AND EQUIPMENT:

1. Hydrochloric (HCl) acid solution (1:1)
2. Liquid rubber or suitable compound similarly unaffected by the HCl solution.
3. 250 mL Beaker
4. 1 L Graduated Cylinder

TEST PROCEDURE:

1. Add 500 mL concentrated HCl (sp. gr. 1.19) to 500 mL distilled H₂O and cool to room temperature.
2. Cut a 6 in. length of the test sample, bend it into a "U" shape, and apply liquid rubber or other suitable compound to both ends to prevent HCl fumes from attacking the wire's galvanized coating. Allow to dry.
3. Weigh the wire to the nearest 0.001 g and record.
4. Pour 125 mL of the solution into a 250 mL beaker. Place the wire into the beaker with the ends sticking up and record the time.
5. After 20 hr, remove the wire from the beaker, rinse under running tap water, dry with a clean, dry towel, reweigh, and record.

CALCULATIONS:

Calculate the lost weight of the wire as follows:

$$C = A - B$$

where:

C = weight loss.

A = weight of sample before exposure to HCl solution,

B = weight of sample after 20 hr in HCl solution, and

REPORT:

Report the lost weight to the nearest 0.001 g.