



JP Specialties, Inc. / Earth Shield® Waterstop

Tech Tips 028

Securing Plastic or Rubber Waterstops in Place with Metal Tie-wire Utilizing Eyelet, Hole Punch, or Hog Rings

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To securely attach flexible waterstops to adjacent reinforcing steel or formwork, use eyelets, holes, or hog rings along the [waterstop](#) profile's outer edges. These attachments are generally spaced 12 inches apart. Tie wire is then inserted through the hole to connect the waterstop and ensure it stays in the correct position during the concrete pour.



Steel tie-wire for securing waterstop in place to reinforcing steel or concrete formwork.

There are several methods you can use to secure the waterstop in place. Here is an explanation of the different methods:

1. Eyelet: Eyelets are small metal rings that are inserted through a pre-punched hole in the waterstop material. They provide the most



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Earth Shield® thermoplastic vulcanizate waterstops with factory-installed eyelets.

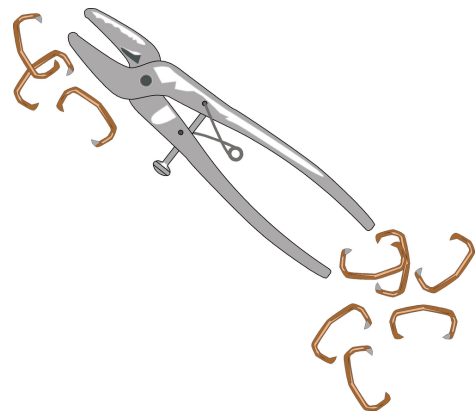
secure anchor point for tying wire through the waterstop and securing it to the formwork or rebar. Eyelets can be installed using a dedicated eyelet tool or by hand using pliers.

2. Hole punch: The hole punch method involves punching holes directly into the waterstop material using a specialized hole punch tool or drill. Once the holes are established, tie wire can be threaded through the holes to secure the waterstop in

place. This method doesn't require the use of separate eyelets or hog rings but is the least effective as it can tear the waterstop under stress.

3. Hog ring: [Hog rings](#) are metal fasteners shaped like hills that can be closed using hog ring pliers. They can be used to secure the waterstop by clamping it tightly to the formwork or reinforcing steel. Hog rings offer a secure and efficient method of fastening the waterstop, and can be user-set not to penetrate the waterstop membrane.

It's important to follow the manufacturer's guidelines and recommendations for the specific waterstop product you are using. They may provide specific instructions on the recommended method of wire-tying and securing the waterstop to ensure proper installation and performance.



Hog rings and specialized pliers.