

## PERMAPLUG ENVIRONMENTAL EARTH SEAL

Designed especially for the cathodic protection industry.

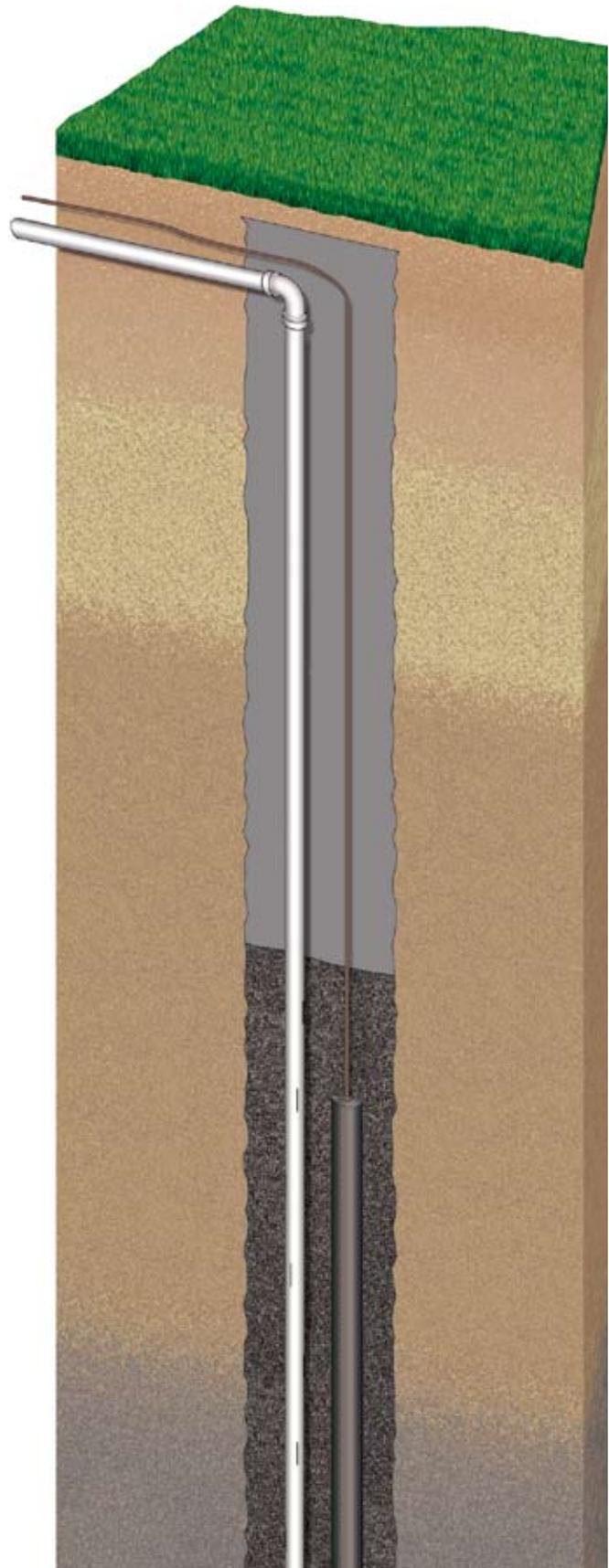
PermaPlug provides the cathodic protection industry with a method to plug and seal earth holes. PermaPlug is environmentally safe and when properly installed, prevents the contamination of underground aquifers from surface fluids.

PermaPlug produces a permanent non-porous molding-clay seal. Manufactured from naturally occurring Bentonite, PermaPlug contains no additional chemicals. Installation is easy requiring no tools or pumps. Simply open the bag and pour.

PermaPlug prevents the deterioration of underground water quality and is environmentally accepted for use in the vicinity of potable drinking water.

PermaPlug requires minimum instruction for proper application.

PermaPlug is inexpensive, easy to install, requires no special tools, and...it works.



# PermaPlug

## Sealing Products

### APPLICATION DATA

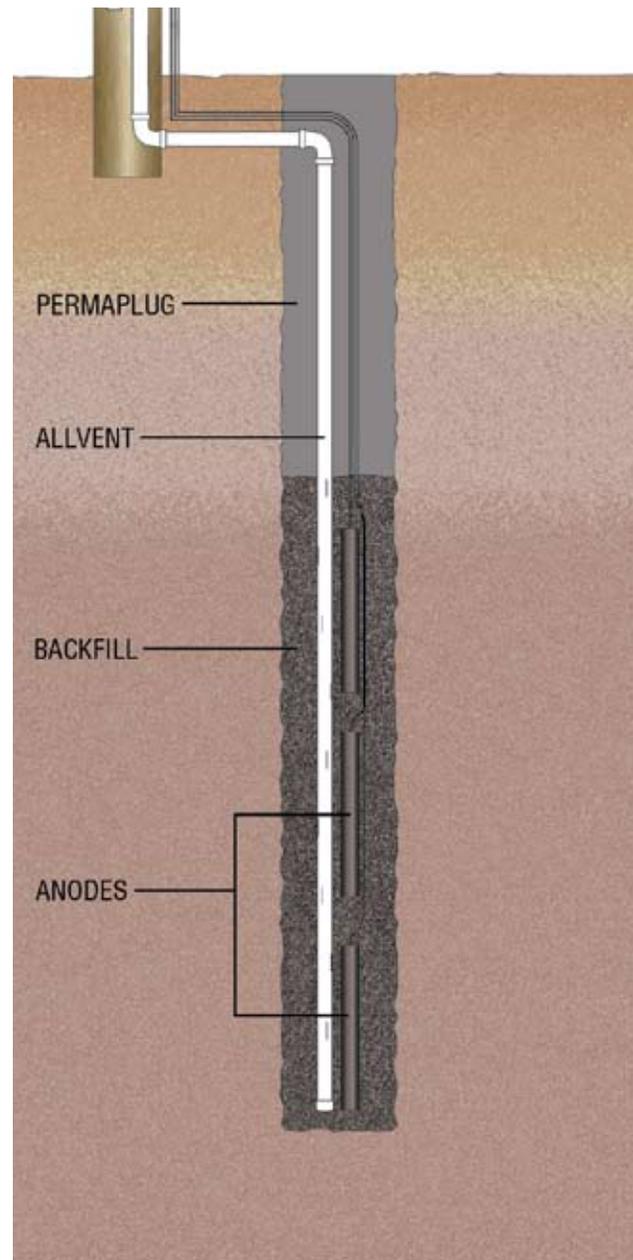
Condition the earth hole area to be sealed by flushing with clean water or by allowing any drilling fluids to sufficiently thin by overnight settling. The fluid within the earth hole should allow the PermaPlug particles to sink readily. When installing PermaPlug above carbon backfill, insure complete backfill settling before beginning PermaPlug installation. Pour PermaPlug slowly into earth. Install one 50 lb. bag of PermaPlug every 3 to 4 minutes until the desired level is obtained.

Once in place PermaPlug will expand to seal the earth hole: PermaPlug is shipped on stretch wrapped pallets. Each pallet contains 3,500 lbs. of PermaPlug. Material should not be handled roughly before installation -- fracturing of particles will occur. PermaPlug is shipped in water-resistant bags but must be stored out of the weather due to moisture sensitivity.

**Caution:** PermaPlug will completely seal earth holes when applied properly. It is strongly advised to utilize a vent pipe for the release of gases and as a facility for water addition if needed. The AllVent breather pipe is recommended. Specifically manufactured for deep cathodic protection systems, AllVent stays open and does not Plug with backfill. For more information and specifications about AllVent, refer to page 25.

### DRY VOLUME OF PERMA PLUG VS. HOLE SIZE

HOLE SIZE	CUBIC FT. PER LINEAL FT.	LBS. OF PERMA PLUG. PER FT.	FT. OF PERMA PLUG PER 100 LBS.	LBS. OF PERMA PLUG PER 100' HOLE
4"	.087	6.1	16.4	610
6"	.196	13.7	7.3	1370
8"	.349	24.4	4.1	2440
10"	.545	38.2	2.62	3820
12"	.784	54.9	1.82	5490



PermaPlug in combination with EnviroCoke IV provides total environmental control.