

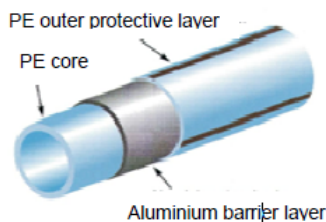


Why Barrier Pipe?

We want to help you understand why we might specify the installation of barrier pipe for your new or replacement water supply and explain why it provides a higher level of protection over standard medium density polyethylene (MDPE) pipe.

What is barrier pipe?

Barrier pipe is a reinforced pipe used to protect water supplies against certain types of contaminants in the soil which can degrade or pass through standard MDPE pipe and put your water supply at risk. There are different types of barrier pipes available. The most common for water supply pipes has a polyethylene core surrounded by a protective aluminium barrier and covered with another layer of polyethylene to act as a barrier to prevent the aluminium corroding. This type of barrier pipe is identified by the black/brown stripes along the length of the outer layer. Please note any barrier pipe used for the supply of drinking water must conform to BS: 8588. The image below shows a cross section.



Why does barrier pipe offer more protection than MDPE?

The metal creates a barrier to hydrocarbons such as petrol/diesel and protects the water within the core from contamination.

Barrier pipe not only provides added security against land that is already

contaminated but also protects against any future issues. Although considered safe at the time, a simple oil or petrol leak from a vehicle parked on a driveway can, over time, begin to filter through the ground, into the MDPE pipe and get into the water supply, causing contamination.

Why is barrier pipe more expensive?

The methods of construction of barrier pipe cause it to be more expensive than standard MDPE pipe.

There are suppliers who sell barrier pipe in short lengths (from 1 metre); you can search for these online. A suggested term in your preferred internet search engine would be "barrier pipe water blue".

When will you specify that barrier pipe must be used?

The previous use of the site or its surroundings will determine whether the land in which the new water supply is to be situated is considered at risk of contamination. We ask you to provide information about the current, previous and future use of the site to help us understand the risk. The more detail you can provide, the clearer the assessment we can make. We welcome any supporting sketches or photographs which may support your application.

For example, if any of the following have been on or near the site in the past, there is very high possibility we will specify the use of barrier pipe for your new or replacement supply:

- Chemical Works
- Vehicle repair/manufacture/storage
- Petrol stations and/or onsite fuel storage
- Gas Works
- Hazardous Waste Treatment/storage
- Tanneries
- Landfill Sites
- Paper Manufacture
- Print Works
- Railway Yards
- Scrap Yards
- Timber Work

How can I find out for sure if the land is contaminated?

You could decide to provide us with a more in-depth report about the condition of your site and send in a Ground Condition Assessment (soil report) to support your application. We request that this includes information about the site use and history, along with a chemical analysis of the soil in order that we can properly understand the risks. We adhere to the [UKWIR Guidance for Selection of Water Supply Pipes to be Used in Brownfield Sites](#).

If the levels of certain contaminants are below the limit specified, we may allow you to install MDPE. However, if these limits are exceeded, then a barrier pipe will need to be installed. It is important to note that the soil report along with other methods will be used to determine the risk of contamination to your supply. All soil reports must be assessed by Affinity Water before any pipe is laid.

In the absence of a ground condition assessment, a risk assessment will be undertaken- based upon the information provided in your application and you may be required to install barrier pipe.

We will advise you of the correct pipe material and diameter on your cost advice. Should you wish to provide further information at this time to contest the use of barrier pipe, please contact us with the relevant information but please note that this may add time into the process. Therefore, if you have the information available at application submission, we encourage you to please provide it at this time.

The selection of a suitable pipe material resides entirely with Affinity Water as we have a duty to protect our network and our customers as consumers. You are strongly advised not to install any pipe work on site until we have advised you of the appropriate pipe material to use.

If we have specified that barrier pipe must be used and you install MDPE within the

property boundary, we can refuse to connect your supply until such time as the supply pipe is replaced in a more suitable material, or sufficient evidence has been provided to assure us that the site has been remediated and is no longer a risk.

We've tried to answer as many of the most frequently asked questions as possible within this guidance note. However, if you have any further queries, please do not hesitate to contact us:

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Or email: dx@affinitywater.co.uk