

WHICH CULVERT PIPE SUITS MY PROJECT?

Farmers often ask the question, ‘do we use PVC culvert or twin-wall HDPE culvert?’

PVC culvert has long been the traditional plastic culvert, used in New Zealand for decades. It has typically been made from a regrind PVC to lower costs. Some quality PVC culvert pipes are made to a standard which limits the amount of regrind material in the pipe ensuring that it is less brittle.

Twin-wall HDPE culvert started being sold in New Zealand in 2005 and has grown fast over the last decade. The key reason for this growth is due to the nature of high density polyethylene (HDPE) which is more suited to the rugged New Zealand farming environment.

WHICH CULVERT PIPE IS THE CHEAPEST?

The cost of the product can be very similar although we tend to find that as you get into the larger sizes (bigger than 400mm and 500mm OD) HDPE culvert tends to have a price advantage. This is because as we move into the larger sizes more plastic is needed in the PVC culverts to give it strength. The larger amount of plastic used leads to the greater price.

The pricing on PVC culvert can also depend on the amount of regrind PVC that needs to be used. Regrind comes from other grade pipes or PVC products which have failed. This regrind can't be used to make the same pipes again as most standards only allow a small amount of regrind within the mix.



EUROFLO® culvert pipe is the best option for twin-wall HDPE incorporating a high strength-to-weight ratio and good value for money.

WHAT APPLICATIONS SUIT EACH STYLE OF CULVERT?

When to use HDPE culvert

HDPE culvert can cope better with non-regulation installs such as the following:

- **Rocky terrain** – The structural integrity of HDPE tends not to be compromised as much as PVC (which tends to crack) when pierced. This gives HDPE an advantage in rocky terrain.
- **Minimal cover** – HDPE can flex more before it is totally compromised, and the culvert fails.
- **Hard to access places** – HDPE tends to be forgiving and more likely to handle being dropped off a transporter and thrown around.

When to use PVC culvert

- **Gravity pressure situations** – When the joins are glued PVC can handle installations with a reasonable head of water. While technically we can't identify a number, they have been known to handle up to a 20m water head.
- **Price is key factor** – In the smaller sizes PVC tends to be more cost-effective so when price is the only consideration in this size range, PVC is the winner.

SUMMARY

In a lot of applications HDPE is the clear winner and this has lent to a sharp rise in usage around New Zealand. However, PVC is often the tried and true and will continue to be used by NZ farmers in the foreseeable future.



Gateway culvert pipe is a good value PVC culvert pipe which is a tried and tested farmer's favourite in New Zealand.