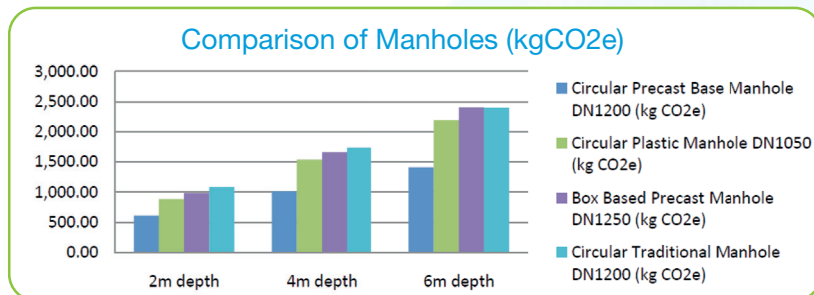


## 1. CO2e You get lower emissions from concrete pipelines.



## 2. Carbonation: How it reduces the carbon footprint of concrete

Concrete carbonation is the reaction between carbon dioxide with the alkaline components of hardened concrete (CaO) to form Calcium Carbonates (CaCO<sub>3</sub>). The process turns concrete into a carbon sink and can play a major part in reducing atmospheric carbon dioxide.

The amount of CO<sub>2</sub> absorbed can effectively reduce the cradle-to-gate carbon footprint of a concrete element and in the case of concrete pipes, by around 10%. The carbon emissions of concrete pipes can therefore look markedly different if such factors are included in the carbon auditing process.

## 3. Water Footprint

The water footprint of a concrete sewer pipe is between 2.6 to 6.7 times lower than an equivalent size plastic pipe. Table: Cradle-to-Gate Water Footprint (in litres) per 1 metre length of pipe.

	PVC Pipe	HDPE Pipe	PP Pipe1	Concrete Pipe
DN300	521		495	78
DN600		1,102 to 1,508	1,021	387
DN900		2,088 to 2,784	3185	614
DN1200		3,886 to 5,220		1,072

- Upto 40% lower green house gasses emissions compared with traditional build
- Life expectancy of a 120 years
- Saves material, with less waste compared to other manhole systems
- The water footprint of a concrete sewer pipe is between 2.6 to 6.7 times lower than an equivalent size plastic pipe
- Speedy installation, less disruption to the local environment
- Watertight system made in factory conditions and kitemarked
- Co2e: Carbon dioxide equivalent. True carbon footprint should include emissions from a number of greenhouse gases including methane which is 25 times more damaging than Co2.

- build greener
- build leaner
- build faster
- build safer
- build quality