



British Precast Drainage Association

Publications from the British Precast Drainage Association (BPDA):

BPDA was formed in 2017 from the integration of the Concrete Pipeline Systems Association (CPSA) and the Box Culvert Association (BCA).

Information published by both CPSA and BCA will be rebranded and replaced as BPDA in due course. New material will be branded BPDA.

All CPSA and BCA web traffic will be redirected to the new BPDA web site at www.precastdrainage.co.uk



CONCRETE

HEAVYWEIGHT

CHAMPION

OF THE

DRAINAGE

WORLD





THE FIGHT IS ON



Modern drainage asks a lot of its materials. You need a system that's totally reliable, easy to install, cost – effective, sustainable and compliant with all the relevant standards. It's no job for a lightweight. That's why concrete is still the UK's best choice for sewerage systems. Concrete offers strong, stable, sustainable performance backed by over 150 years of proven success.





ROUND

1

CONCRETE CAN TAKE THE BIG HITS

Concrete is tough. Concrete pipes are structural elements, designed to take most of the loading. Alternative, lightweight systems usually need lots of expensive, imported bedding material. Concrete doesn't. Wherever conditions are onerous – such as projects with heavy construction trafficking or deep excavations – concrete is overwhelmingly the preferred choice.



ROUND

2

CONCRETE STANDS ITS GROUND

Concrete stays in place. As a natural heavyweight, concrete pipes will stay in position during jointing, backfilling and compaction. It's far less likely to float in floodwater or ground with a high water table. Concrete pipes offer strength and flexibility with joints that can take up movement in the ground and with a wide range of standard products to provide lots of options for the designer.





ROUND

3

CONCRETE KEEPS ITS SHAPE

Lightweight materials can deform under load which affects their structural and hydraulic performance. Ovalised pipes are more likely to lose structural integrity and to accumulate sediment and detritus. Concrete pipes with their high inherent strength are designed to keep their shape throughout a long service life. So there's less risk of compromised performance.

ROUND

4

CONCRETE WITHSTANDS THE PRESSURE

Pressure comes from all around. Backfill and traffic are powerful external pressures. But pipes are also exposed to internal hydraulic forces including high-pressure water jetting. Concrete is strong, resilient and less susceptible to damage.





ROUND

5

CONCRETE KEEPS UP THE PACE

Hydraulic efficiency is key to pipeline performance. Over time, slime and sediment will modify the hydraulic roughness and the rate of flow. So it makes sense to ask: how will hydraulic capacity change over the lifetime of the pipeline? Unlike some alternatives, concrete will not lose hydraulic capacity due to ovalisation and does not have internal corrugations along its length.

ROUND

6

CONCRETE IS STRONG AND FLEXIBLE

Concrete can roll with the punches. Some ground movement is inevitable – often for entirely natural reasons. Concrete pipes have durable, flexible joints designed to accommodate this. You can choose from a wide range of standard pipe sizes, shapes and components. Bespoke manufacturing and on-site modification offer further flexibility.





ROUND 7

CONCRETE KNOCKS DOWN COSTS

Concrete can bring down your installed costs. There's less need for expensive granular bedding. There are no hidden costs for gaskets and connectors, as concrete pipes come complete with integral seals. And lifetime costs are lower too – concrete systems are still performing well after 150 years of service.



ROUND 8

CONCRETE GOES THE DISTANCE

Concrete's performance is a matter of record. Concrete pipelines are at the heart of drainage infrastructure in many of the UK's biggest cities. They are tough enough to cope with construction traffic and deeper cover depths. They don't lose shape or strength over their service life. They are the strong, stable and sustainable choice. Why pick a lightweight?





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MORE HARD-HITTING FACTS



You can get the full story on the strengths of concrete drainage systems at the CPSA website. It's packed with information on competitive and environmentally friendly solutions. You'll find in-depth answers to your technical queries and details of the latest innovations in the design and installation of concrete pipelines and sustainable drainage systems (SuDS).

Visit www.concretepipes.co.uk today.



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