

Trenchcrete & Hydrafil

Readymix speciality products



Trenchcrete & hydrafil

What is Trenchcrete?

Trenchcrete is a highly workable blend of fine aggregate, water, cement and an air entraining agent. Trenchcrete has been specifically designed by AfriSam Readymix to be used as an efficient and economical trench and void filling material. It can be used as an economical alternative to placing and compacting soil or granular material. Trenchcrete is virtually self compacting and can be used primarily for applications requiring a highly fluid mixture for thin, irregular sections and pipe filling where early strength is not required.

Benefits of Trenchcrete

- It consolidates under its own weight and is self levelling, needing no internal vibration or surface compaction.
- Can easily flow into voids beneath pipes and around obstructions.
- May be placed in all weather conditions.
- Hardens with very little settlement and does not require overfilling.
- May be pumped into inaccessible or restricted areas. Pumping is possible due to the product's high flowability.

Significant cost reductions can be achieved because using Trenchcrete saves time and promotes labour efficiency. Excavation costs are also reduced. AfriSam Readymix will deliver loads as small as 1m³ to suit applications such as narrow trenches across roads and pavements.

Product specification

Properties of fresh concrete	
Modified flow	> 500 mm
Air content	> 13%
Settlement	< 1%
Properties of hardened concrete	
4-day compressive strength	0.4 - 0.5 MPa
28-day compressive strength	1.5 - 2.5 MPa
28-day indirect tensile strength	> 250 KPa
28-day California bearing ratio	> 200
DCP at 29 days	< 5 mm / blow
Abrasion after 5000 repetitions	< 5 mm
Trafficable after 24 - 36 hours	

What is Hydrafil?

Hydrafil is a workable blend of aggregate, sand, cement and water. Once Hydrafil is placed into the void or trench the water bleeds away freely, causing mechanical interlock of the sand and stone particles. This results in a

highly stable backfill material used primarily for regular trenches and larger voids where early trafficking is essential.

Benefits of Hydrafil

- Will ensure that the excavation is efficiently reinstated with stable material.
- Trenches and excavations will be subject to traffic after 4 hours.
- Hydrafil sets and hardens in all weather conditions.

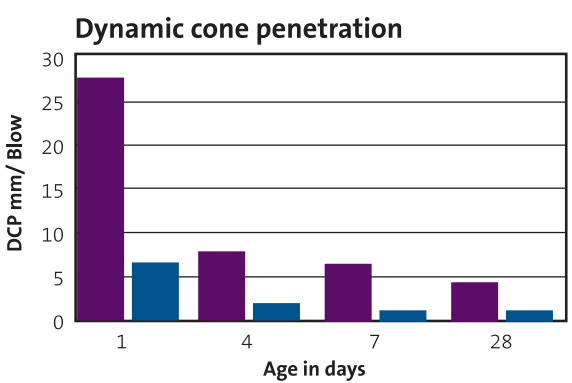
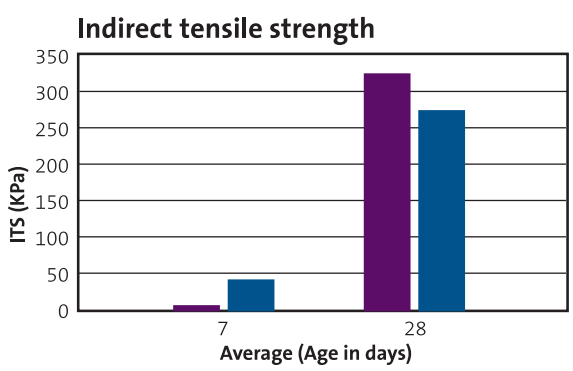
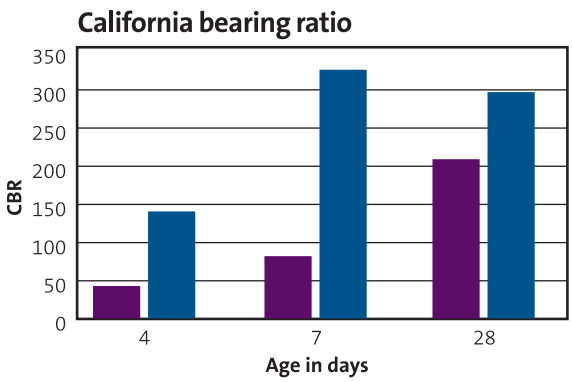
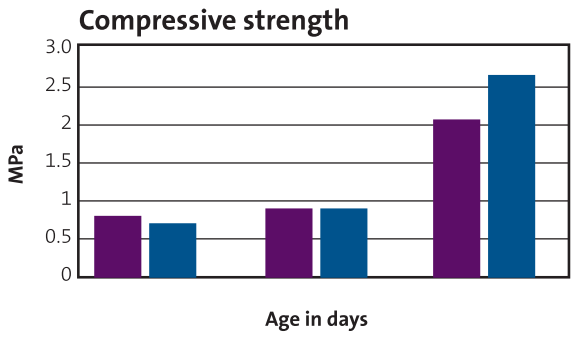
Significant cost reductions can be achieved because using Hydrafil saves time and promotes labour efficiency. Excavation costs are also reduced. Narrow excavations can be filled with Hydrafil as no compaction is needed.

Product specification

Properties of fresh concrete	
Settlement	< 1%
Properties of hardened concrete	
4-day compressive strength	0.5 - 1.2 MPa
28-day compressive strength	2.5 - 3.0 MPa
28-day indirect tensile strength	> 250 KPa
28-day California bearing ratio	> 300
DCP at 29 days	< 2 mm / blow
Abrasion after 5000 repetitions	< 1.5 mm
Trafficable after 6 - 8 hours	

Problems associated with conventional backfilling methods, which can be avoided by using Trenchcrete or Hydrafil.

- Trenches need to be dug wider to accommodate compaction equipment.
- The original structured layers of road are removed and replaced. No consideration is given to moisture content. The structural integrity of the road base is not maintained.
- Often it is not possible to compact each new fill layer fully because of space and time constraints.
- The density of the refilled area is not the same as on either side of the trench. Vehicles driving over the surface compact the filled area to a level below the road surface.
- The road layers on either side of the trench are not adequately supported by conventional backfill and are subject to impact loading by traffic; hence the edges of the trench begin to crumble.
- Road safety and potential damage to vehicles are also factors to consider in the above instances.



■ Trenchcrete
 ■ Hydrafil



Readymix Plant Locations

Gauteng

Alrode
Eikenhof
Ferro
Jukskei
Kwagga
Kya Sands
Olifantsfontein
Rosslyn
Scoop
Spartan
Technikon
Vanderbijlpark
Vereeniging
Wadeville
Wynberg

Mpumalanga

Evander
Middelburg
Witbank

KwaZulu-Natal

Coedmore
Ladysmith
Newcastle
Ottawa
Umgeni
Isipingo

NorthWest

Brits
Marikana
Rustenburg

Western Cape

Bellville
City
Philippi
Peninsula

Botswana

Gaborone

Contact the regional office in your area for Sales or Technical Services or any other information.

Gauteng:	0860 200 500	(011) 670 5777
KwaZulu-Natal:	0800 313 151	(031) 460 9000
Western Cape:	0860 009 114	(021) 659 3100
Botswana:	0026 73500172 (Tel)	0026 73500173 (Fax)

customer.service@za.afrisam.com
www.afrisam.com

