

# Porof foam

*Lightweight Foamed Concrete*

**Porof foam is a range of low density foam concretes designed specifically for voidfill, stabilisation and other lightweight applications.**

Porof foam is a lightweight, free flowing foamed concrete. Manufactured using CEMEX admixtures it is available in a wide range of densities and compressive strengths to suit your application and requirements. The product is easily placed with no compaction required and can be produced onsite by our foam generation units or delivered in trucks premixed.

## BENEFITS

- ✓ Highly Fluid & Self Levelling
- ✓ Can Be Pumped
- ✓ Lightweight
- ✓ Freeze / Thaw Resistant
- ✓ Insulating Properties
- ✓ Load Spreading
- ✓ Reduced manpower
- ✓ Negligible risk of subsidence

## APPLICATIONS

Porof foam is ideal for filling voids such as disused fuel tanks, sewer systems, pipelines and culverts, particularly where access is difficult. It is a recognised medium for the reinstatement of road trenches.

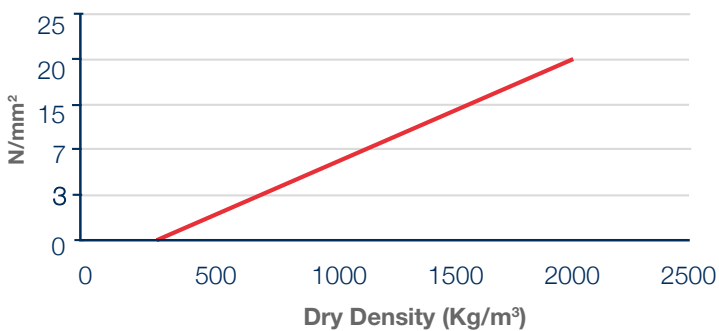
## VOID FILL APPLICATIONS

- ✓ Pipelines
- ✓ Service Ducts and Shafts
- ✓ Sinkholes
- ✓ Culverts and Subways
- ✓ Redundant Sewers
- ✓ Cellars and Basements Higher
- ✓ Bridge Abutments
- ✓ Tunnel Stabilisation
- ✓ Embankments
- ✓ Low density insulating sub-screed
- ✓ Insulating fill to house over-sites
- ✓ Roadfill
- ✓ Tankfill

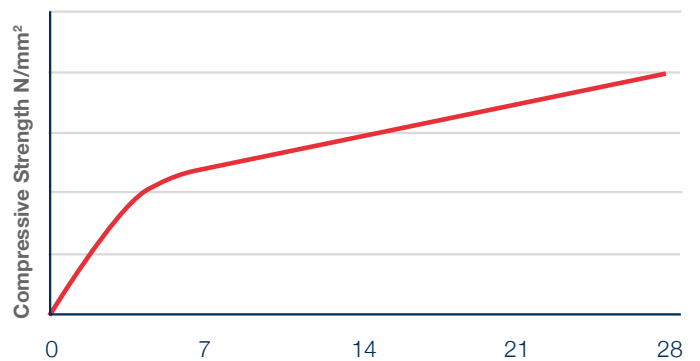
## DENSITY & STRENGTH

Poroforam can be tailored to your requirements, our technical team will create a suitable mix design for your application. Poroforam can achieve strengths of up to 20 N/mm<sup>2</sup> and our unique production process allows us to produce an extremely wide range of dry densities from as low as 300kg/m<sup>3</sup> up to 2000+kg/m<sup>3</sup>. For strengths and densities outside of this range our team will work with you to provide a solution.

Typical Dry Density to Compressive Strength Relationship



The compressive strength gain of Poroforam alters according to mix design. However, a representation of Poroforam strength gain is shown in this graph.



## SITE CONSIDERATIONS

- The site should be able to receive deliveries from conventional concrete truck mixers.
- Provision should be made for wash out facilities for the mixer trucks after delivery.
- The areas to be poured must be free from debris, absorbent materials and standing water.
- Poroforam should only be used when the ambient temperature is between 5°C and 30°C.

## PLACEMENT & USE

- Poroforam can be pumped horizontally, vertically or directly placed in layers of up to 1 metre single lift depth in order to maintain the required air void structure.
- Poroforam can be pumped by either a conventional concrete pump or rotor stator pump (commonly referred to as a 'Worm Pump').
- At no point should Poroforam be dropped from height. In deep applications Poroforam should be 'Tremmied' to the base of placement.
- For enclosed void fills, access points must be made available so placement can be undertaken evenly throughout the void.
- The material typically remains fluid for 2/3 hours after mixing with the foam (dependant upon ambient conditions).

## PLASTIC STATE ADVANTAGES

Poroforam is a versatile and practical material which can be tailored to a variety of project needs and operational conditions:

FEATURE	BENEFITS
Produced at the plant or on site.	Immediate placement on delivery. No storage needed. Good workability retention.
Wide range of possible mixes.	Adjustable to meet specific performance requirements. Controlled density and strength.
A cellular fill.	Less prone to penetration from external contaminants.



## WORKING IMPROVEMENTS

The free-flowing but cohesive properties of Poroforam provide many working benefits:

FEATURE	BENEFITS
Easy to place and finish.	Single process installation Reduced labour and supervision costs. Specialist plant (e.g. compactors, vibrators) not needed.
Pumpable	Poroforam can be pumped and placed by conventional concrete pumps.
Self compacting and self-levelling.	Ideal for inaccessible trenches where compaction would be difficult or impossible. Allows controlled discharge into narrow openings. Fully fills void space, including undercut pockets. Entirely surrounds and protect pipelines.
Single operation trench reinstatement.	Minimises traffic disruption due to road closure. No need for compaction equipment. No need to stockpile granular-fill material. Helps increase workforce productivity and cost-effectiveness. No revisit due to long term settlement.
Good cohesion.	Prevents bleeding or segregation. Allows controlled discharge through narrow entry points. Does not settle after placing.

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## FINAL CONCRETE PERFORMANCE

Plastic state qualities translate into significant final performance benefits:

FEATURE	BENEFITS
High air content.	Resistant to freeze/thaw damage. Good thermal and acoustic insulation.
Good cohesion.	Stable foam structure reduces settlement. Reduces bleeding and segregation
Controlled density and strength.	Low strength allows removal for subsequent access to services. Reduces bleeding and segregation



**For further enquiries or to place an order contact us on:**

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