



**pozament**<sup>®</sup>

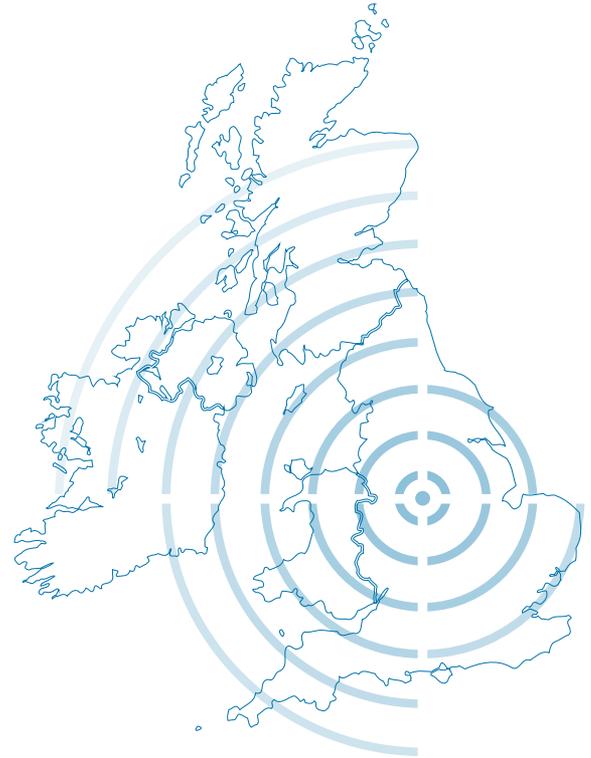
Hydrotite

**Waterproofing for Concrete Construction Joints**





Pozament stands for 50 years of versatility, innovation and high quality. We pride ourselves on providing not just the very best materials for construction professionals, but also a wide choice of waterstop products, sealants and finishes to protect their work and extend its life.



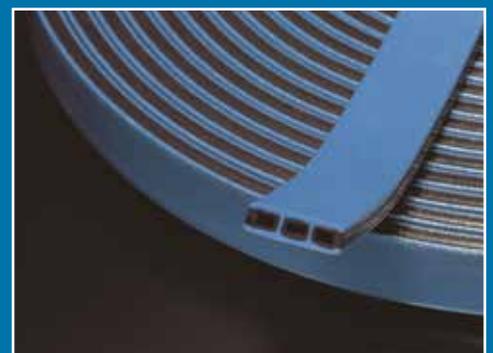
## Triple waterstop protection

Hydrotite is a highly effective and reliable waterstop system consisting of a composite hydrophilic and non-hydrophilic rubber strip.

Proven for many years in construction projects the world over, it expands at a controlled rate on contact with moisture to provide a 100% watertight seal.

Once in place, Hydrotite provides triple protection against water ingress by:

- 1** Creating an immediate compressed seal between adjacent concrete joint surfaces due to the natural elasticity of the rubber
- 2** Expanding through hydrophilic reaction to create a secondary watertight compression seal that compensates for any shrinkage or joint movement
- 3** Maintaining hydrophilic properties to protect against further water infiltration in the event of future structural movement.



## Case Study

Hydrotite CJ provides a robust waterstop in one of Europe's most challenging public transport tunnelling projects.

The extension to the Naples Metropolitan underground network involved driving several kilometres of track tunnel beneath heavily urbanised areas of the city and the construction of several new stations.

An unusually high water table and the city's proximity to the coast means tunnels and stations are subject to unusually high heads of water pressure - a challenge not just during construction, but for the entire design life of the project.

The problem of waterproofing the site for tunnel boring was solved by an advanced method of artificial ground freezing (AGF) using recirculated liquid nitrogen.

To secure tunnel sections and stations against water ingress for their one hundred or more years of anticipated use, however, engineers turned to Hydrotite CJ.

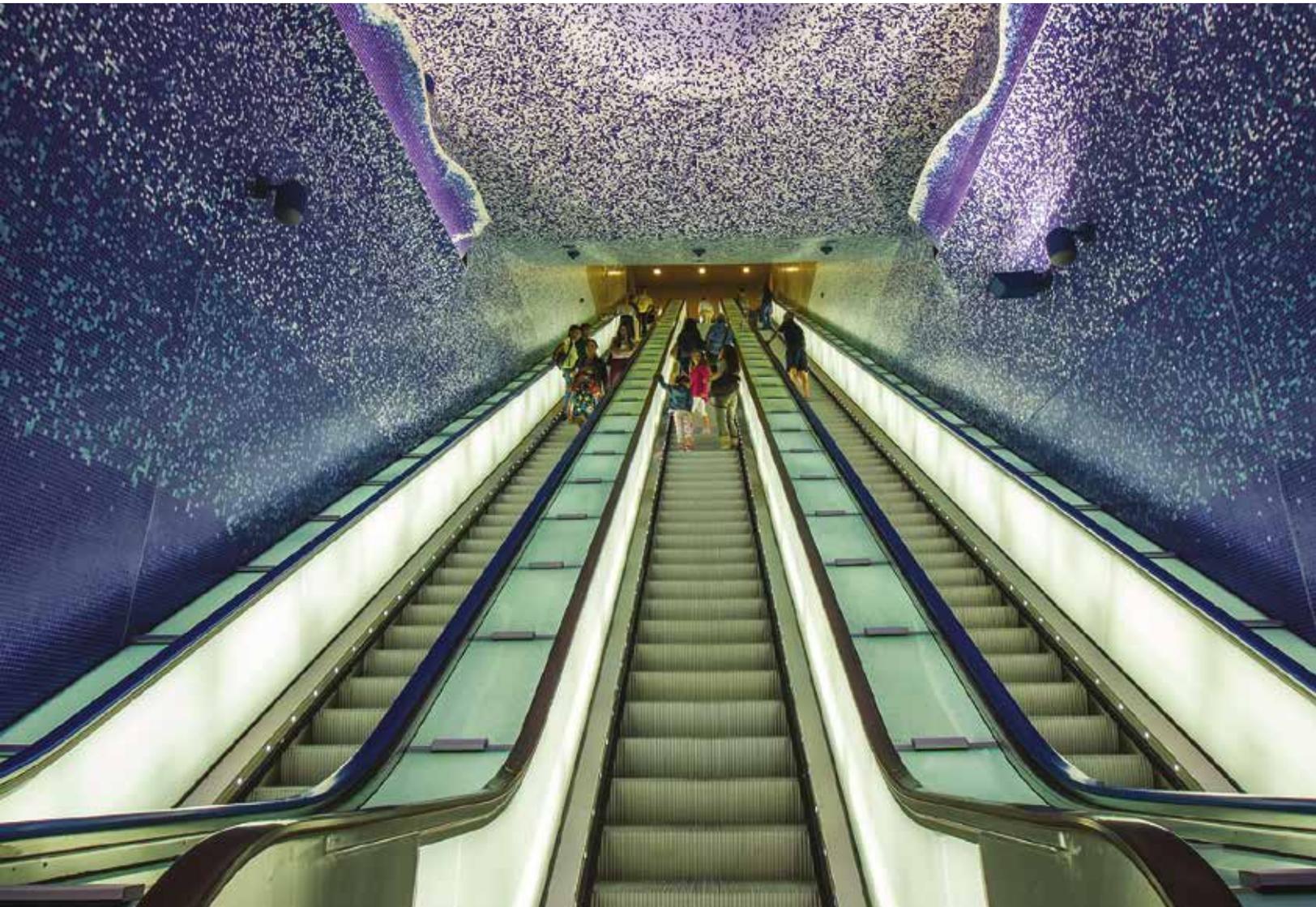
Over 5 kilometres of Hydrotite CJ-0725-3K and CJ-3030-M were used to waterproof construction joints and platform tunnel sections in the new stations.

The standard station design required a 40m deep central shaft, with the water table rising well above this level in many places. This, combined with the inaccessibility of any waterstop for repair or replacement once the project was finished, meant engineers had to be completely satisfied Hydrotite could resist the extreme hydrostatic pressures encountered underground.

In addition, Hydrotite's capacity to retain its hydrophilic properties in the event of settlement and ground movement made it the perfect choice for a site affected both by vibrations from passing trains and regular seismic activity.

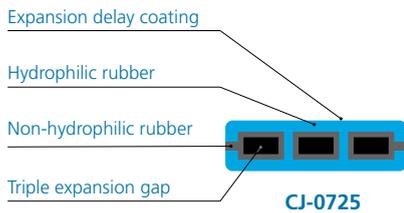
### OTHER CONSTRUCTION PROJECTS USING HYDROTITE.

Ohtoh Line C.6 Tunnel	Japan	Subway system culvert box joint	CJ-0725-3K
Shiga Nuclear Power Plant	Japan	Undersea tunnel jointing	CJ-0725-3K
Manchester Aquatic Centre	United Kingdom	Swimming pool waterproofing	CJ-0725-3K
Harbour City, Naples	Italy	Harbour dry dock	CJ-3030-M
Mariott Courtyard Hotel, Chakan-Pune	India	Water tank	CJ-0725-3K



# Hydrotite CJ

The original profiled waterstop, engineered for security, high performance and peace of mind.



Hydrotite CJ is designed to cope with the hydrostatic pressures and structural movement experienced in large commercial and infrastructure projects.

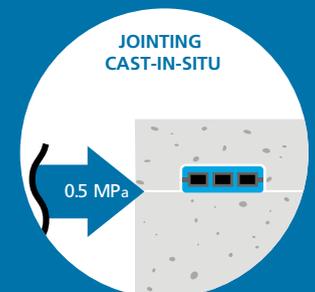
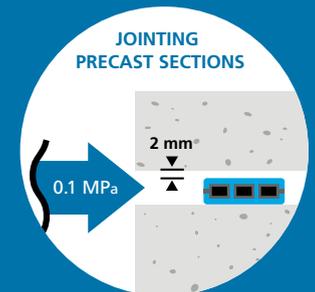
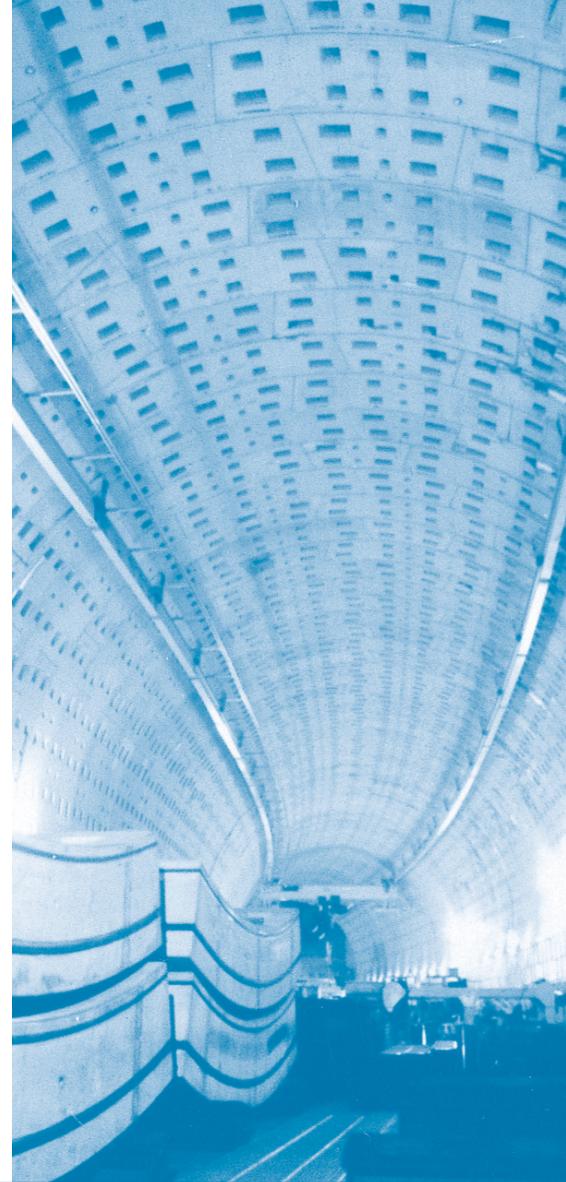
That means you can be confident high-value developments are protected against joint failure and the prospect of costly repairs to water damaged walls and footings.

And that engineering and utility installations such as tunnels and culverts, dams, reservoirs, ports and water treatment plants remain leak tight under the most extreme conditions for their entire design life.

## HYDROTITE CJTA

Hydrotite CJTA is an advanced formulation of Hydrotite CJ that reduces premature expansion before installation, even on contact with moisture.

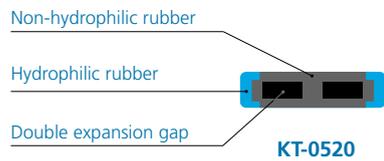
Only in the alkaline conditions found in fresh concrete will Hydrotite CJTA start absorbing water, making it ideal on projects where higher than average rainfall or groundwater levels are expected, or where there may be a delay between application and the second concrete pour.



- Easy to fit - no specialist tools or fixings needed
- Proven design life of at least 120 years
- Delay action coating allows concrete to gain strength before expansion, preventing cracking
- Co-extruded design regulates expansion across the joint for uniform pressure distribution
- Expands up to twice its original size
- Excellent resistance to bacteria and common chemicals
- Easily worked around corners, angled joints and curves to a minimum 60mm radius
- May be applied to rough surfaces using Leakmaster gun grade waterstop.

## Hydrotite KT

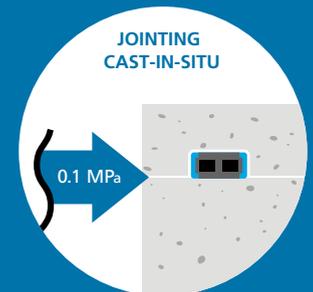
Proven waterstop performance for standard construction joints.



Hydrotite KT is a versatile, all purpose waterstop for use in a wide range of general building applications.

In basement structures, underground residential parking, swimming pools and residential and light commercial properties, its inert centre section and 2 swelling edges provide a secure double seal against water ingress.

The most flexible of all products in its class, Hydrotite KT is easier to install, easier to fix around corners and accommodates a tighter curve radius – just 60mm – than any of its competitors.



- Install using nails, adhesive or a combination of both. Nailing will not affect waterstop performance.
- Flexibility: One profile suits most applications
- Excellent resistance to bacteria and common chemicals
- Co-extruded design regulates expansion across the joint for uniform pressure distribution and less risk of concrete cracking
- Limited edge expansion means Hydrotite KT can be laid closer to joint edges, allowing thinner wall construction
- Easily worked around corners, angled joints and curves to a minimum 60mm radius.

# Leakmaster Sealant

Water absorbing sealant with excellent elasticity and durability.

Leakmaster is a gun applied waterstop product that expands up to twice its original volume on contact with water to provide a secure, watertight seal.

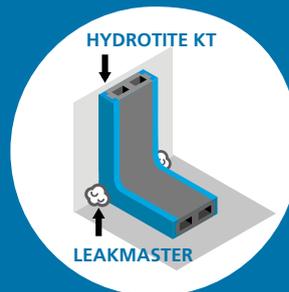
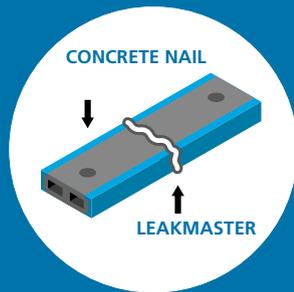
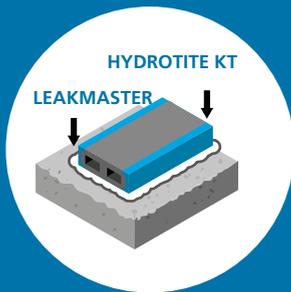
Its flexibility and versatility make it ideal for a wide range of commercial, residential and engineering applications, as well as in refurbishment projects where irregular or hard to access joints and penetrations make solid sealants impractical.

Leakmaster adheres well to most surfaces, including concrete, glass and steel. And because it keeps its rubber-like elasticity, it can accommodate movement and settlement while maintaining excellent leak tightness.

### CONTACT ADHESIVE

Hydrotite should be secured to the cured first pour layer of the joint using Hydrotite Contact Adhesive A28. For best performance, ensure the joint surface is free of dirt, oil and other impurities.

For extra security in corners and curves, or where the concrete surface is uneven, Leakmaster may be used as a combined adhesive and filler.



### Leakmaster

- Suitable for pipe and beam penetrations, external joint waterproofing, box culvert joints and a wide range of other applications
- Easy application to smooth and uneven surfaces for reliable water sealing
- Displays better physical properties after hardening than conventional putty type sealants
- Use as an adhesive with Hydrotite CJ and KT for extra security in angles and curves
- Effective alternative to solid waterstops in uneven or difficult to access joints.

## Technical Sales and Advice

The Pozament Technical Services team provides help and advice on selecting the right waterstop solution.

Based on the joint specifications, building loads, cement type and hydrostatic characteristics of your site, our experts will develop a recommendation drawing on the full scope of features and profiles in the Hydrotite range.

As well as Hydrotite CJ and KT, these include:

- Hydrotite SS, DSS and SST for precast segment and kerb expansion joints
- RS and RST for water sewage tunnel applications
- DS and DST for subway and road tunnels
- RSS for culverts and gap repairs.

The earlier on in your project you contact us, the more opportunities we can identify to save you money – both in the design and construction phase and by reducing the need for expensive repair work to your project in years to come.

To speak to a technical adviser, call us on **08444 630 046** or email [pozament@tarmacbp.co.uk](mailto:pozament@tarmacbp.co.uk)

**Tarmac**   
BUILDING PRODUCTS

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