Tarmac
BUILDING PRODUCTS

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Product Data Sheet | HYDROTITE KT

HYDROTITE WATERSTOP AND SEALANT RANGE

Hydrotite KT

Used as a waterstop in concrete construction joints requiring effective, economical protection against hydrostatic pressures up to 0.1 MPa (10 metre head of water).

Product Description

Hydrotite KT is a composite strip of **blue hydrophilic** (water absorbing) and **black non-hydrophilic** rubber.

On contact with water, the hydrophilic rubber expands to seal gaps and prevent further water ingress in precast and cast-in-situ joints. The dark blue hydrophilic rubber turns light blue as it absorbs water, giving a clear visual indicator of any premature expansion.

Hydrotite KT has a central void that absorbs pressure in the initial stages of expansion to reduce the risk of concrete cracking.

A delay action coating prevents immediate expansion on contact with rain and moisture during transport, storage and installation. It also stops Hydrotite KT absorbing water from freshly poured concrete.

Hydrotite KT is chemically inert and has passed the WRC Tests of Effect on Water Quality (BS6920), making it suitable for use in potable water applications. It is resistant to mineral and vegetable oils, petrol and many other chemicals.

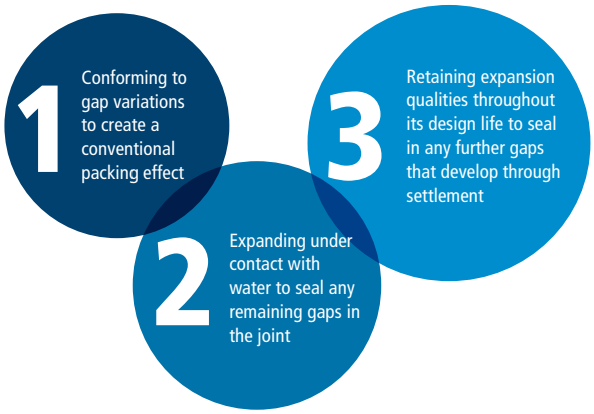
Product dimensions

	ITEM	HEIGHT	WIDTH	PACKAGING
	KT-0520	5 mm	20 mm	10m roll

Performance

Performance principles: Hydrotite KT absorbs water across its hydrophilic rubber component, increasing in thickness by up to 70% depending on water chemical conditions. In cast-in-situ joints, it provides protection up to 0.1 MPa (10 metre head of water).

When integrated into a concrete joint, Hydrotite KT achieves a durable seal by:



Swelling properties

Tests on a sample of the hydrophilic rubber used in Hydrotite KT showed an increase of 6 times its original volume. The in-house test used distilled water at a temperature of 23°C over an immersion period of fourteen days.

Typical uses

Hydrotite KT has a wide range of applications in residential and light commercial building projects where hydrostatic pressures up to 0.1 MPa (10 metre head of water) dictate the use of a standard performance waterstop.

- Underground residential parking
- Swimming pools
- Basement structures
- Tanks and cesspits
- Retaining walls
- Foundations
- Garage and outbuilding slabs.

Product Installation

General

Hydrotite KT may be installed in a pre-formed groove, or directly onto the flat surface. 1 The second pour should be made as soon as possible after Hydrotite KT is installed to avoid premature swelling on contact with rain, dew or groundwater.

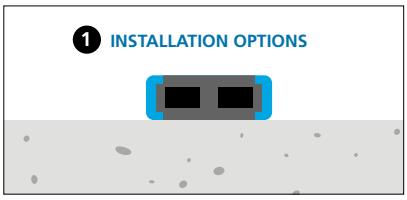
For the best bond and most effective performance, the surface of the cured first pour should be smooth, even and free of dirt, oil and laitance. Concrete surfaces left rough by jackhammering or weathering should be smoothed off. Hydrotite Leakmaster can also be used to level bonding surfaces. 2

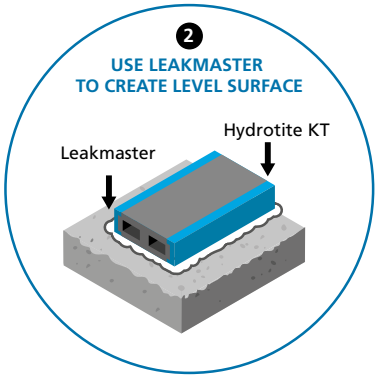
Fixing

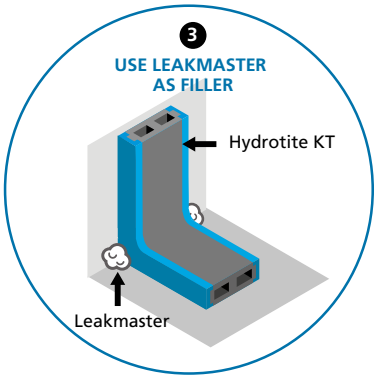
For a firm fix, coat the concrete surface and the underside of the Hydrotite KT strip with Hydrotite Contact Adhesive A28. Allow to air dry for 2 to 3 minutes before pressing home.

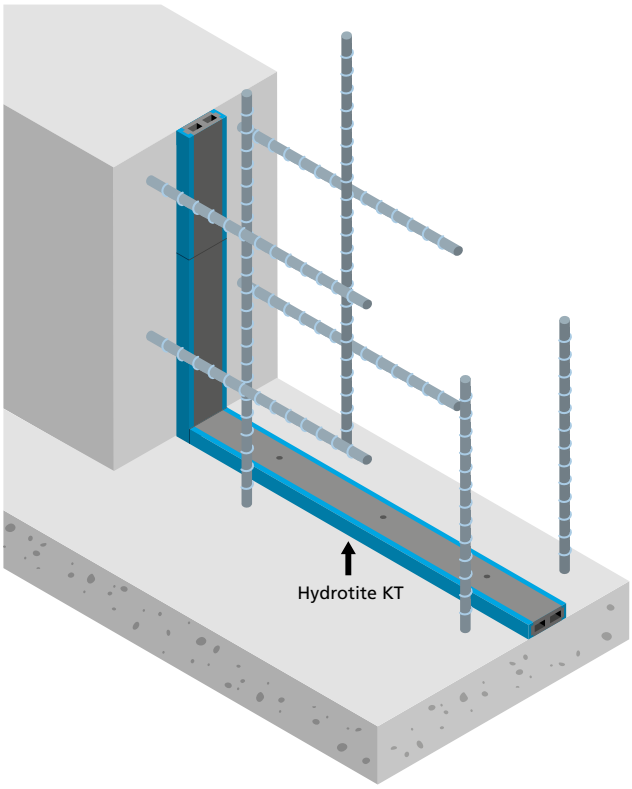
Hydrotite Leakmaster may also be used as an adhesive, particularly where surfaces are uneven or in curves and corners, where the recoil properties of the rubber put added strain on the adhesive fix. Concrete nails or fasteners can be used to secure joints while the adhesive dries and should always be used as additional security on all vertical or overhead surfaces.

All installations should be checked for gaps between Hydrotite KT profiles and the substrate before the second pour. Fill any gaps with Hydrotite Leakmaster and allow to dry before pouring. 3







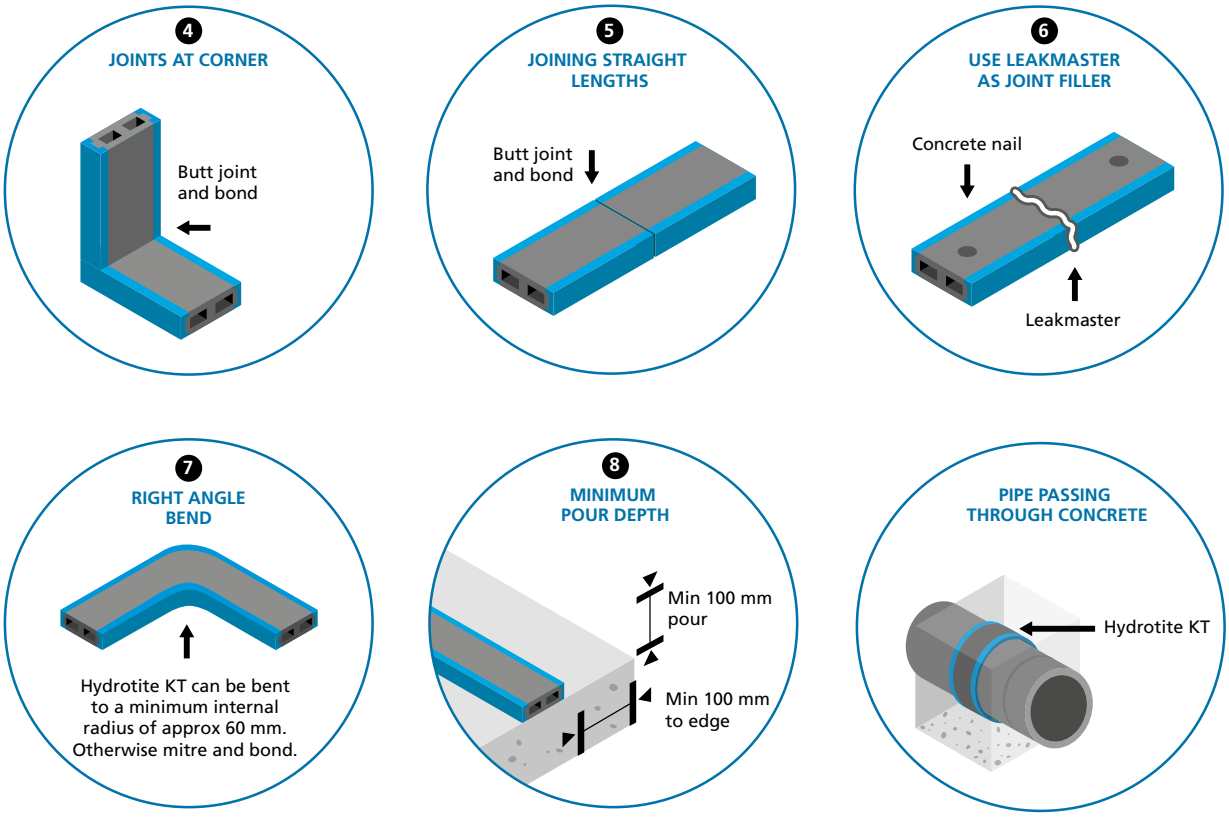


Jointing
Where corners are too sharp to offer sufficient surface contact for proper adhesion, Hydrotite KT can be cut and butted together. 4

Straight lengths should be cut square with a sharp knife or shears and glued using a Cyanoacrylate glue (superglue). 5 Press and hold the cut ends together to secure the joint. If necessary, gaps or fissures can be filled with Hydrotite Leakmaster. 6

Flat 90 degree corners are created by mitre cutting both ends at 45 degree angles and fixing with Cyanoacrylate glue. If the width of the joint surface allows, Hydrotite KT can be bent about its long axis to a 90 degree angle with an inside radius of 60mm. 7

Second pour
It is recommended that concrete is poured to a minimum depth of 100mm to avoid cracking when Hydrotite starts to expand within the joint. 8 A delay action coating ensures concrete has time to begin curing before expansion takes place.



Hydrotite KT Physical Properties

ITEM	UNIT	HYDROPHILIC RUBBER		NON-HYDROPHILIC RUBBER	
		STANDARD	TYPICAL	STANDARD	TYPICAL
Specific Gravity		1.40 ± 0.10	1.35	1.40 ± 0.10	1.41
Hardness	JIS-A	50 ± 5	52	50 ± 5	51
Tensile Strength	N/mm^2	min 2.94	3.63	min 8.82	12.25
Elongation	%	min 600	760	min 400	435

Note: Specimen: Pressed rubber sheet made of the same compound of the products. The specifications shown above may be changed without notice to improve product quality. 'Standard' represents factory specifications. 'Typical' represents most commonly recurring results.

Swelling Characteristics

Swelling characteristics of Hydrotite KT depend on water quality. Typical example shown below.

Immersion: 14 days

ITEM	UNIT	SPEC.	RESULT	TEST METHOD
Volume expansion	%	Min. 40	70	In house test

Packaging and Storage

Hydrotite KT is packaged in convenient 10m rolls, weighing less than 3kg each. There are 5 rolls in one standard box.

Store Hydrotite KT in a cool, dark, dry place. Avoid damp conditions, as exposure to moisture can lead to premature expansion, which may reduce the effectiveness of the watertight seal.

Information, Prices and Ordering

For technical information, prices and to place orders contact our Sales Office on the following:

Tel 08444 630 046
Fax 08443 099 703
Email pozament@tarmacbp.co.uk
Web www.pozament.co.uk

Pozament - Tarmac Building Products Ltd.
Swains Park Industrial Estate. Park Road,
Oveseal Swadlincote, Derbyshire DE12 6JT.

Health and Safety

Wear protective gloves for handling and installing Hydrotite. Store in a cool, dry, well ventilated place. Keep away from water, heat, flames and sunlight. Thermal decomposition may produce harmful gasses, including HCl and CO.

In the event of fire, use carbon dioxide, dust and foam extinguisher and ventilate smoke from affected area as quickly as possible.

Dispose of waste and offcuts in line with local or national legislation.

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