BUILDING TRUST

PRODUCT DATA SHEET

Sika® Hydrotite CJ-0725-3K

HYDROPHILIC STRIP FOR SEALING SITE FORMED CONCRETE JOINTS

DESCRIPTION

Sika® Hydrotite CJ-0725-3K is a hydrophilic rubber sealing strip used to seal site formed construction joints.

Note: Sika® Hydrotite CJ-0725-3K is not a sealing material for expansion joints and should not be used as such

CHARACTERISTICS / ADVANTAGES

- In addition to the packing effect which conventional sealing materials have, Sika® Hydrotite CJ-0725-3K expands as it absorbs water and fills up concrete joint gaps conforming to the gap variations and thus ensuring excellent sealing
- In the case of conventional waterstops, air tends to be trapped at Point A (Figure 1) after their application, thus adversely affecting the sealing effect. In contrast, Sika® Hydrotite CJ-0725-3K is free from protrusions which could have an adverse effect on placement (Figures 1 & 2)
- Sika® Hydrotite is easy to handle as it is lightweight
- Sika® Hydrotite is treated with an expansion delay coating to preserve it from the influence of water from freshly poured concrete and prevent expansion taking place before curing of concrete

Figure 1

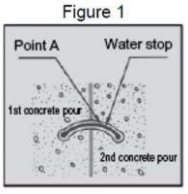
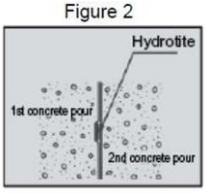
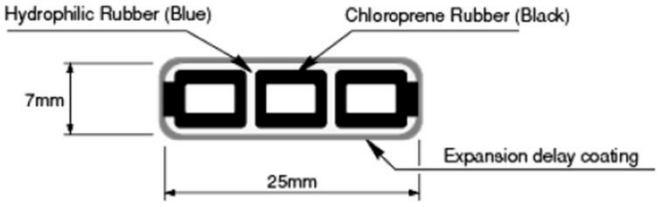


Figure 2



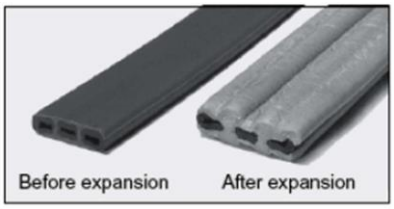
PRODUCT INFORMATION

Standard Dimension (CJ-0725-3K)



Swelling Characteristics

The swelling characteristics of Sika® Hydrotite depends on the water quality as shown below:



Picture 1

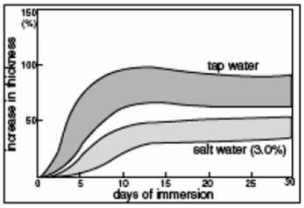


Chart 1

Packaging	4 x 10 meter rolls per carton
Shelf Life	Unlimited when stored in a cool, dry, well-ventilated location
Storage	Keep away from water, heat, flame and sunlight.

TECHNICAL INFORMATION

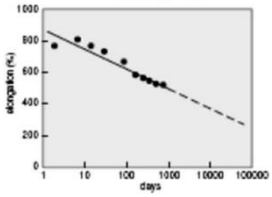
Physical Properties

Item	Hydrophilic Rubber		Chloroprene Rubber	
	Standard	Typical	Standard	Typical
Specific Gravity	1.40 ± 0.10	1.35	1.40 ± 0.10	1.35
Hardness (JIS-A)	50 ± 5	52	50 ± 5	52
Tensile Strength (Kgf/cm^2)	min. 30	37	min. 30	37
Elongation (%)	min. 600	760	min. 600	760

Durability (Accelerated heat aging Property)

In order to observe the material durability of Sika® Hydrotite, a heat aging test was carried out at +50°C for 720 days. Sika® Hydrotite hardens and loses elongation to some extent, due to the influence of heat and oxygen; however, it still holds the retention value of elongation by more than 70% (Chart 2).

Chart 2



Chemical Resistance

The influence of pH values of concrete, grouting material and groundwater upon the expansion of Sika® Hydrotite were tested as follows:
The specimen was immersed in each solution for seven days and the retention value of tensile strength and elongation were measured. Then, the

Type of Testing Solution	Change of Physical Properties after 7-day Immersion		Retention of expansion value after 7-day immersion in tap water following immersion in solution
	Tensile Strength	Elongation	
pH 3 aqueous solution	O	O	O
pH 5 aqueous solution	O	O	O
pH 7 (tap water)	–	–	–
pH 9 aqueous solution	O	O	O
pH 11 aqueous solution	O	O	O
Ferrous aqueous solution	O	O	O
Bentonite aqueous solution	O	O	O
Grout aqueous solution	O	O	O

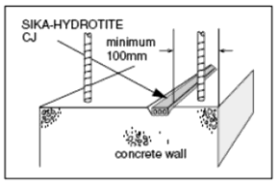
Test Results: The retention value of both physical properties and expansion was compared with that of specimens tested in tap water. Sika® Hydrotite retains values of 90% or more in all solutions listed in the table above.

APPLICATION INFORMATION

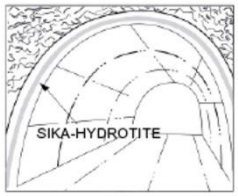
Compatibility

The length of Hydrotite SST Profiles should be joined by butt jointing. For better results as there are holes at the section of Hydrotite SST Profiles, joints could be bonded with SikaSwell®-S2 to prevent water ingress.

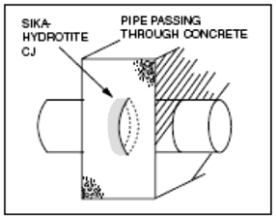
Typical Areas of Application



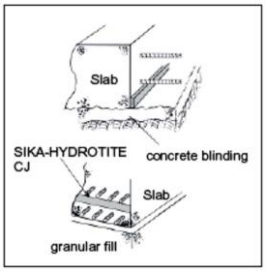
Wall Joints
Position CJ-0725-3K centrally Towards either edge if preferred, observing the minimum edge distance



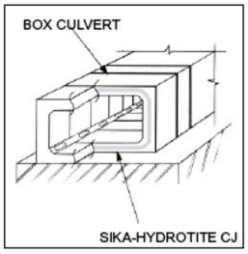
Joints in Concrete Lining for Tunnelling Work (e.g. NATM)



Pipes Passing Through Concrete
Position CJ-0725-3K around pipes and other fittings passing through concrete



Slab Joints
Position CJ-0725-3K centrally or towards either edge if preferred



Precast Concrete Joints (Box Culvert & Precast Concrete Panels)
Profile thicker than the design gap dimension should be selected from the profile list for best results. Adhere CJ-Type to the groove with neoprene adhesive continuously. Precast concrete panels should be connected with bolts.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

For best results, Sika® Hydrotite CJ-0725-3K should be applied to even surfaces to ensure good bonding. It is recommended that a minimum of 100 mm concrete cover be allowed on both sides of the Sika® Hydrotite CJ-0725-3K position (Figure 3).
Any variation in this allowance shall depend on the concrete strength and reinforcement used. In such instances, it is possible to reduce this cover to 50 mm.

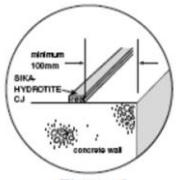
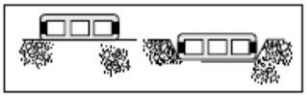


Figure 3

Figure 4



Sika® Hydrotite CJ-0725-3K can be applied on to plain surfaces of the concrete directly or in a formed groove (Figure 4).

Surface Conditions of 1st concrete

In-Situ-Concrete

Sika® Hydrotite CJ-0725-3K can be applied on to plain surfaces of the 1st concrete layer without any grooves but care must be taken to ensure that the strip is positioned in the centre of the concrete thickness with adhesive and concrete nails.

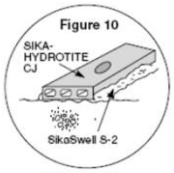


Figure 10

When the surface of the 1st concrete is uneven, it should be made completely flat using a piece of timber before the concrete cures or levelled with adhesive such as SikaSwell®-S2 (Figure 10).

Precast Concrete

Remove all surface laitance, mud or grease with a wirebrush before bonding the Sika® Hydrotite CJ-0725-3K with SikaSwell®-S2 (refer to section on Bonding). Generally, concrete nails on their own should not be used for the purpose of fastening Sika® Hydrotite CJ-0725-3K in place.

APPLICATION METHOD / TOOLS

Joints

The length of Sika® Hydrotite CJ-0725-3K should be joined by butt jointing (Figure 7). As there are few holes at the section of Sika® Hydrotite CJ-0725-3K, joints must be carefully bonded with SikaSwell®-S2 to prevent water ingress (Figure 8).

Figure 7

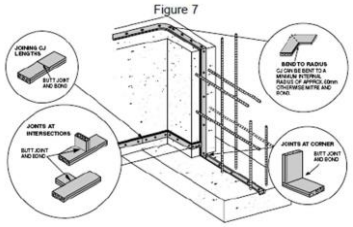
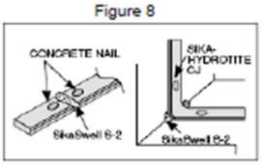


Figure 8



Bonding

Remove dust, oil, etc. from the surface where Sika® Hydrotite CJ-0725-3K is to be applied. An adhesive should be uniformly applied to the surface of the 1st concrete layer.

Smooth and dry concrete surfaces (Figure 9)

Use SikaSwell®-S2

- If necessary, clean and/or dry surface
- Apply a thin even film of adhesive to both surfaces of the first concrete and the Sika® Hydrotite CJ-0725-3K strip
- Allow an open time before bonding
- Align Sika® Hydrotite CJ-0725-3K strip and press down firmly to ensure overall contact

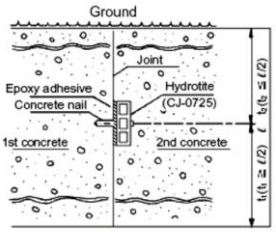


Figure 9

Rough and damp concrete surfaces (Table 2)

- It is advisable to use a two-component moisture tolerant epoxy adhesive, e.g. Sikadur®-31

Table 2: Adhesive to be used

Type of Adhesive	Surface Condition	
	Wet	Dry
Silicone	o	o
Epoxy	o	o
Rubber	-	o

- After mixing the main component and the hardener of the epoxy adhesive correctly, apply it on to the rough surface to obtain a smooth surface finish
- Concrete nails may be used to fix Sika® Hydrotite CJ-0725-3K while the epoxy cures

Rough and dry concrete surfaces

- Use SikaSwell®-S2, a one-component type water-swelling sealant to bond the Sika® Hydrotite CJ-0725-3K strips
- Cut the nozzle of SikaSwell®-S2 diagonally and then apply it to the surface of the concrete
- Concrete nails may be used to hold Sika® Hydrotite CJ-0725-3K while SikaSwell®-S2 cures

LIMITATIONS

- In order to avoid concrete cracking which may be caused by the expansion pressure of Sika® Hydrotite CJ-0725-3K, a minimum of 100 mm concrete cover measured from the bonded position of Sika® Hydrotite to each side and the use of steel reinforcement is recommended.
- When storing, please keep Sika® Hydrotite CJ-0725-3K in a cool, dry place and do not expose it to water or sunlight
- Use Sika® Hydrotite CJ-0725-3K only for site formed concrete joints in underground structures where constant damp and/or wet conditions are expected
- Before applying to the joints, do not expose Sika® Hydrotite CJ-0725-3K to any water, rain, etc. After application, adequate measures should be taken to prevent its exposure to rain water, groundwater, etc. before the joint is covered with fresh concrete

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regula- tions the declared data and recommended uses for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, stor- age and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTES

The information, and, in particular, the recommend-dations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's re-commendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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