

# HYDRO-STOP® CJ-5000

## CHLOROPRENE RUBBER HYDROPHILIC WATERSTOP



### PRODUCT DESCRIPTION

**CORK JOINTING SYSTEMS Hydro-Stop® CJ-5000** Chloroprene Rubber Hydrophilic Waterstop is produced from a unique hydrophilic chloroprene rubber sealing compound which expands in a controlled fashion when exposed to moisture to form a gasket and compression seal inside the concrete joint, to give a permanent flexible watertight seal. **Hydro-Stop® CJ-5000** is capable of sealing heads of water up to 60 metres (6.0 Bar) in ground and salt water environments.

**Hydro-Stop® CJ-5000** is ideal to be used in horizontal and vertical construction joints for cast in-situ concrete structures and pre-cast elements.

**Hydro-Stop® CJ-5000** complies to NSF/ANSI Standard 61 Drinking Water System Components - Health Effects, ensuring **Hydro-Stop® CJ-5000** is safe for use in drinking water applications. Therefore, it is suitable to use in various potable water retaining structures like water tanks, swimming pools and reservoirs.



### ADVANTAGES

- Excellent sealing capabilities against high hydrostatic head pressures in potable and salt water environments.
- Provides a permanent, flexible gasket and compression seal inside the concrete.
- Available in a number of different sizes, shapes and profiles to suit the specific structure's joint requirements.
- High quality, non-biodegradable compounded chloroprene hydrophilic rubber that provides long-term durability and integrity to the joint and structure.
- Ability to expand up to 200% in contact with water and over 100% expansion in salt water.
- Has been tested to withstand over 60 metres (6.0 Bar) of hydrostatic head pressure.
- For use in many different types of applications but especially suited for water retaining structures where direct water pressure is applied against the concrete joint.
- Can be applied directly on to smooth concrete surfaces or rough surfaces with the use of a recommended adhesive.
- Unaffected by repeated wet and dry cycles.
- Non-toxic, requires no special handling and can be used in potable water structures.
- Fast and simple to install.
- For use in horizontal and vertical construction joints.
- No on-site welding required.
- NSF Certified for use in potable water applications.



## AREAS OF APPLICATION

Water Retaining Structures	Water Excluding Structures	Others
Water tanks	Basements	New to old concrete
Reservoirs	Underground structures	Poured in-situ construction joints
Dams	Tunnels	Roof slabs
Spillways	Subways	Suspended slabs
Sewage treatment plants	Retaining walls	Above & below grade precast panels (check with <b>CORK JOINTING SYSTEMS</b> & your Engineer)
Water treatment plants	Pits	
Swimming pools	Manholes	
Box culverts		
Bund walls		

Note: The product's design and performance, its intended use, installation and final confirmation and approval for use, must be provided by the project's Design Engineer and Project Manager.



## PHYSICAL PROPERTIES

DESCRIPTION	TEST METHOD	RESULTS
Color		Orange
Specific Gravity	ASTM D71	1.25-1.30
Elongation		400%
Hardness	ASTM D217	40
Application Temperature Range		-22°C to 52°C
Service Temperature Range		-45°C to 93°C

Note: The above Physical Property results are obtained from our internal Certificate of Analysis (COA) testing from a specific batch. Material properties can vary between batches.



## EXPANSION RATE PROPERTIES

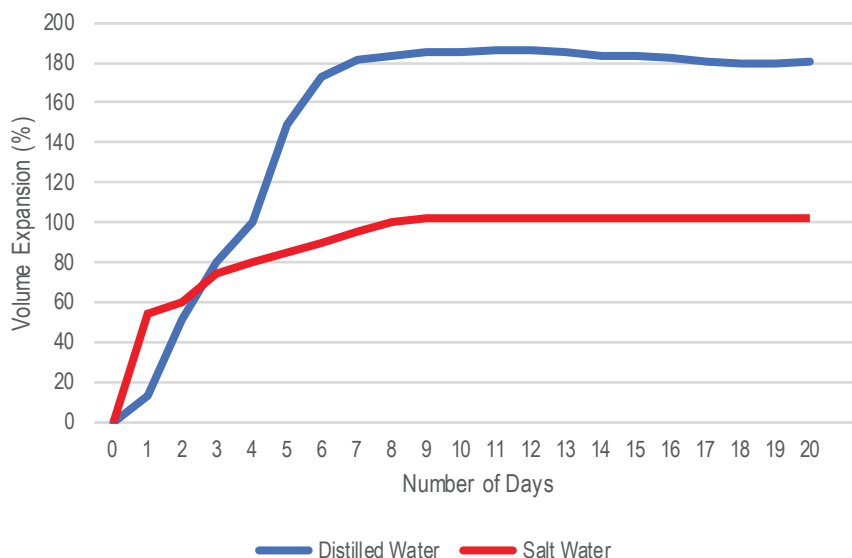


Figure 1: Expansion rate properties of Hydro-Stop® CJ-5000 in various solutions

Note: The above test reports are available upon request.





## EXPANSION RATE PROPERTIES (continued)

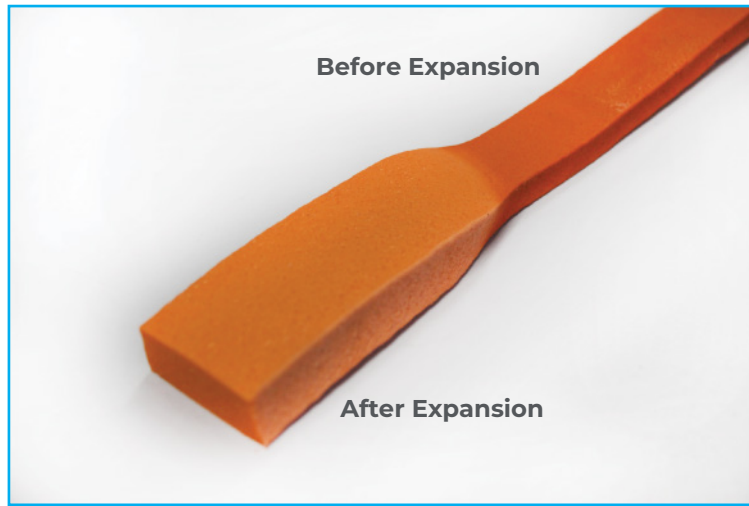
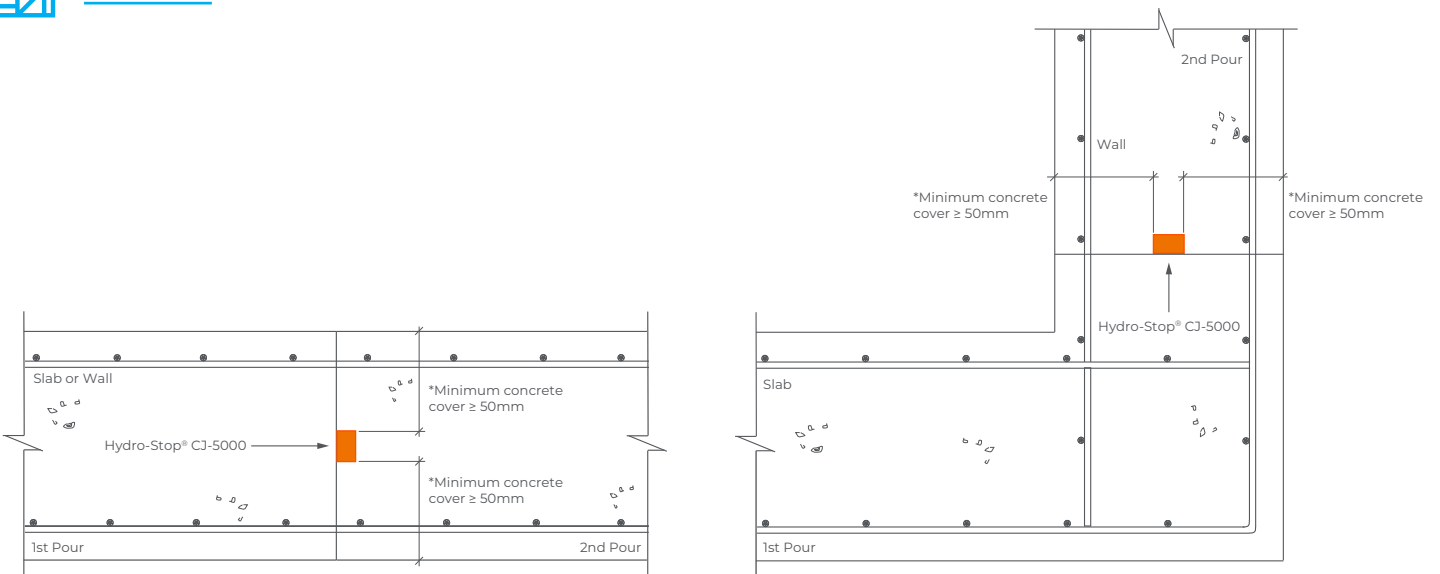


Figure 2 : Before and after expansion of Hydro-Stop® CJ-5000



## TYPICAL APPLICATIONS



SLAB ON GROUND OR WALL

SLAB TO KICKER IN WALL

Note: Refer to above minimum concrete cover requirements. Please refer to **CORK JOINTING SYSTEMS** for further information.



## NOTES

Due to expansive forces, **Hydro-Stop® CJ-5000** should be both detailed and installed with a minimum 50mm clear cover to the face of the concrete. Expansion rate can vary in salt and contaminated water. Increase cover when using light weight, low strength concrete. Not for use where excessive shrinkage of the concrete may occur at the joint faces. Do not stretch the **Hydro-Stop® CJ-5000** during installation. Not for use in movement (expansion, isolation and contraction) joints.



## PACKAGING & DIMENSIONS

Hydro-Stop® CJ-5000 - 20mm x 10mm x 10m rolls (8 rolls per carton)





## INSTALLATION PROCEDURES

**Hydro-Stop® CJ-5000** requires a minimum 50mm cover of concrete from the outside edge.

For a smooth concrete surface:

1. Make sure the surface of the concrete is clean and dry, and brush off any dust or debris from the area where the **Hydro-Stop® CJ-5000** is to be applied. If there are any high or sharp points of concrete protruding, then remove these with the use of a hammer or similar tool. If there are any holes in the concrete surface bigger than 10mm in depth or diameter, then fill these with a small application of Leakmaster hydrophilic sealant, prior to placement of the **Hydro-Stop® CJ-5000**. Once the surface has been prepared accordingly, brush a thin coat of CJ-100 Adhesive 30mm wide onto the concrete surface and one thin coat to the surface of the **Hydro-Stop® CJ-5000**.
2. Once both surfaces of where the adhesive was applied, are touch dry, with the use of your thumbs or heel of your hand, firmly press a continuous bead of **Hydro-Stop® CJ-5000** into position, making sure you achieve full contact with the adhesive on the concrete surface. Do not stretch the **Hydro-Stop® CJ-5000** when applying it into position.
3. Use a neat, firm butt joint to join **Hydro-Stop® CJ-5000** together and then apply a 10mm bead of Leakmaster over the top of the joint and down each side of the joint. This type of joint is used for continuous placement of **Hydro-Stop® CJ-5000** and for any intersection joints.
4. Check to see that the **Hydro-Stop® CJ-5000** has fully adhered to the concrete surface. There must be no visible gaps under the **Hydro-Stop® CJ-5000** after installation.
5. The protective paper layer cover on the **Hydro-Stop® CJ-5000** can be removed any time prior to the second pour of concrete taking place.
6. Placement of the second pour of concrete can be applied once the adhesive has dried. Upon pouring, make sure the concrete is properly compacted and vibrated around the **Hydro-Stop® CJ-5000**.
7. If the **Hydro-Stop® CJ-5000** has been exposed to water (moisture) prior to the second pour taking place, check for pre-expansion. If the product has pre-expanded, then remove that section and replace with a new length of **Hydro-Stop® CJ-5000**.
8. For vertical construction joints and overhead applications, it may be necessary to also secure the **Hydro-Stop® CJ-5000** with nails, placed approximately every 250mm apart. This is usually only required as extra security if you need to pour your concrete prior to the CJ-100 Adhesive drying completely.
9. If the **Hydro-Stop® CJ-5000** is going to be exposed to moisture or submerged in water longer than 5-7 days, then an additional coating of CJ Expansion Delay Coating may need to be applied to all exposed areas. Consult **CORK JOINTING SYSTEMS** for further advice.

For a rough concrete surface:

1. For rough concrete surfaces where the **Hydro-Stop® CJ-5000** cannot conform to the irregularities of the surface, the use of Leakmaster hydrophilic sealant must be applied instead of CJ-100 Adhesive. Depending upon the roughness of the concrete, apply a continuous 10mm to 20mm diameter bead of Leakmaster onto the surface. Once applied, with the use of your thumbs or heel of your hand, firmly press a continuous bead of **Hydro-Stop® CJ-5000** into position, making sure you achieve full contact with the Leakmaster on the concrete surface. Do not stretch the **Hydro-Stop® CJ-5000** when applying it into position.

*Note: All other points above from number 3 to 9 also need to be applied.*





## INSTALLATION PROCEDURES (continued)



### STEP 1 :

**Hydro-Stop® CJ-5000** is to be adhered to the 1st pour of concrete with **CJ-100 Adhesive**. A clean, dry surface free from dust, debris, etc, is required. Apply one application of adhesive onto the concrete surface and one application onto one side of the **Hydro-Stop® CJ-5000**.



### STEP 2 :

Once both surfaces are touch dry, lay the **Hydro-Stop® CJ-5000** into position and push firmly down with your fingers. If the surface is rough then you may need to use a firmer hand pressure to make sure that the product has full contact with the surface of the concrete.



## TEST REPORTS - INDEPENDENT LABORATORY

- Exposure & Water Immersion Expansion in Potable Water
- Exposure & Hydrostatic Head Pressure (cyclic wet & dry) in Potable Water
- Water Immersion Expansion in Salt Water (In-house)
- National Sanitation Foundation (NSF) Certification for Potable Water Use

*Note : The above test reports are available upon request.*



## WRITTEN SPECIFICATION

Waterstops where shown on the drawings shall be **Hydro-Stop® CJ-5000** Chloroprene Rubber Hydrophilic Waterstop as supplied by **CORK JOINTING SYSTEMS**. The waterstop is to have a built-in expansion control system to minimise any pre-expansion prior to the second pour taking place and be able to withstand up to 60 metres (6.0 Bar) hydrostatic head pressure resistance. The waterstop is to be placed in accordance with the manufacturer's installation guidelines, and the design engineers specification.



## HEALTH AND SAFETY INFORMATION

In confined spaces or in still air conditions, the use of a ventilation fan or suitable respirator should be used, and the advice and approval of the Site Safety Supervisor is essential. For further information or advice on health and safety precautions, safe handling, storage and correct disposal of products, please refer to the most recent product Safety Data Sheet (SDS), which is available upon request.





## DISCLAIMER

The information and the recommendations relating to the application and end use of this product are given in good faith and are based on the information provided by the manufacturer of the product and/or the Company's current knowledge and experience in connection with the product when properly stored, handled and applied under normal conditions and no liability of final function at the job site is assumed. In practice, the differences in materials substrates and actual site conditions are such that no warranty in respect of merchantability of or fitness for particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written and/or oral recommendations, or from any other advice offered by the Company. The Company also has no express or implied knowledge of any particular purpose for which the product is required and any such information given will not be taken into account in the supply of this product. No responsibility or liability by the Company will be accepted for misuse, misreading or derivation from recommended guidelines in respect of this product and the user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. The information contained in our brochure may change at any time without notice. Any use of this product; **Hydro-Stop® CJ-5000** in any application should be approved as suitable for use/application by the Design Engineer and Project Manager.

**Effective Date: 29 JULY 2020**

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