

SOLCO FORM-TIE WATER STOP



Hydrophilic Water stop

Solco Form-Tie Waterstops expands around the form-tie system in the concrete structure, to give a permanent flexible watertight seal.



Form-Tie Plug

(Externally inserted into the Form-Tie Conduit Sleeve)



Form-Tie Sealing UFO

(Externally applied around the Form-Tie Conduit Sleeve or the Form-Tie Rod)



Form-Tie Sealing Connector

(Externally applied around the Tie-Rod, with a Form-Tie ring completing the seal)



SOLCO - Water Stops

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Product Description

Solco Form-Tie Waterstops are produced from a unique hydrophilic rubber sealing compound which expands in a controlled fashion when exposed to moisture to form a compression seal inside or around the form-tie system in the concrete structure, to give a permanent flexible watertight seal.

Available in a number of different sizes and profiles to suit the form-tie system and once installed, forms a continuous barrier, making Solco Form-Tie Waterstops ideal for preventing water penetration or egress

Typical Uses

Water Retaining Structures

- Water Tanks, Reservoirs & Dams
- Water Treatment Plants
- Sewage Treatment Plants
- Swimming Pools

Water Excluding Structures

- Basements
- Underground Car Parks
- Tunnels & Subways
- Retaining Walls
- Pits & Manholes

Features & Benefits

- Excellent sealing capabilities available in many different sizes, shapes and profiles
- Provides a permanent, flexible gasket and compression seal inside the concrete.
- High quality, non-biodegradable hydrophilic rubber that provides long-term durability and integrity.
- Ability to expand up to 400% in contact with concrete water and over 200% expansion in salt water.
- Has been tested to withstand over 60 metres of hydrostatic water head pressure.
- Most suited to water retaining structures where direct water pressure is applied against the concrete
- No external grout required to fill form-tie conduit sleeve hole after Solco Form-Tie Plug has been positioned.
- Non-toxic and can be used in potable water structures.
- Unaffected by repeated wet and dry cycles.
- Fast and simple to install.

Technical Data

Material Type	Rubber Plugs / Rings	SEBS Rubber compound containing special hydrophilic polymers
	Plastic for plugs	Plastic for plugs Hard core impact resistant polyamide
Colour	Rubber Plugs / Rings	Red
	Plastic for plugs	Grey
Expansion Capability	400% in concrete water and 200% in salt water	
Hydrostatic Water Pressure Resistance	Over 6 bar (60 metres)	
Chemical Resistance	In general, good resistance to Acids, Alkalis and most Aquas solutions. Be careful with solvents and hydrocarbons and refer to our chemical resistance chart.	
Service Temperatures	-50°C to +70°C	
Storage Conditions/Shelf Life	2 years from date of production if stored properly and in original unopened and undamaged sealed packaging in dry conditions, out of direct sunlight, not exposed to moisture and kept at temperatures between +10°C to +40°C.	

Installation Procedure

Form-Tie Conduit Sleeve Installation

- Thoroughly clean out the form-tie conduit sleeve to ensure that it is free of any dust, debris and foreign matter.
- Place the Solco Form-Tie Plug manually into the open end of the form-tie conduit sleeve.
- With a hammer and with a light-slow action, hammer the Solco Form-Tie Plug into the hole until flush with the outside edge of the form-tie conduit sleeve. No extra finishing is required.
- Check and make sure that the Solco Form-Tie Plug has a tight and secure fit.



1. Insert the Solco Form-Tie Plug into the open end of the conduit sleeve.



2. Hammer the Solco Form-Tie Plug with light blows from a hammer until flush with the end of the conduit sleeve



3. The Solco Form-Tie Plug installed. No further finishing is required.

Form-Tie sleeves & Form-Tie rods Installation

- Thoroughly clean the outside surface of the form-tie conduit sleeve or rod, free of any dust, debris and foreign matter.
- Place the Solco Form-Tie Ring over the outside face of the form-tie conduit sleeve or rod and slide it along to approx the middle section.
- A minimum of 75mm of cover from any outside edge of the concrete to the Solco Form-Tie Ring should be followed.
- Check and make sure that the Solco Form-Tie Ring has a tight and secure fit around the sleeve or rod.
- The Form-Tie Ring assembly is now ready for the concrete to be placed.

Limitations

- Due to the expansive forces of the hydrophilic rubber compound, Solco Form-Tie Rings need to be installed with a minimum concrete cover of 75mm from any outside edge.
- Increase concrete cover when using lightweight or low strength concrete.
- Expansion rate can vary in concrete water and salt water environments.



Form-Tie Sealing Connectors & UFO Assembly



1. Position the sealing connector against the Tie Rod



2. Close the sealing connector around the Tie Rod

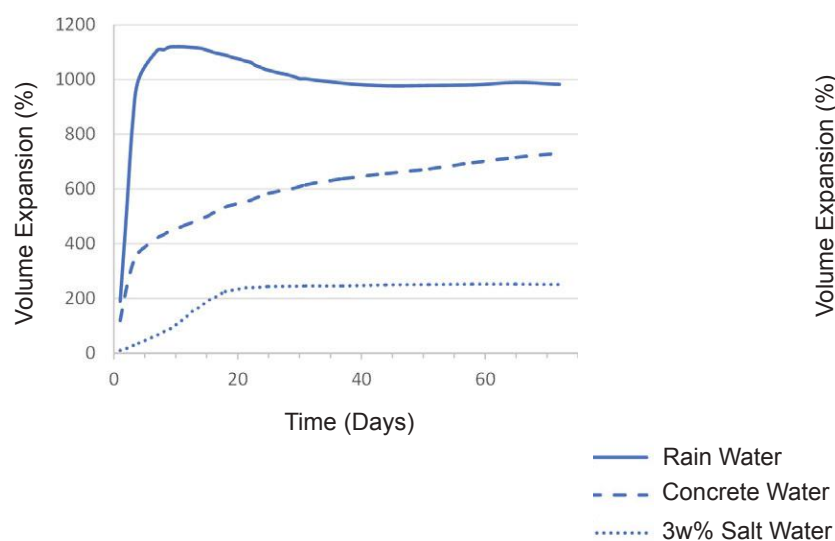


3. Slide the sealing UFO over the Tie Rod

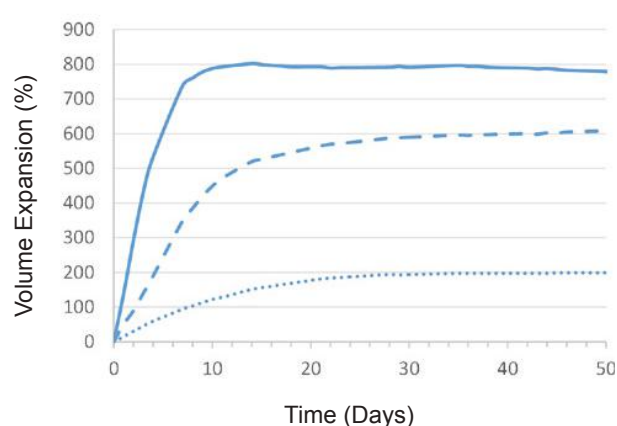


4. Anchor the sealing connector in place using the sealing UFO

Form Tie Sealing Plug Expansion Capacity



Form Tie Sealing UFO Expansion Capacity



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Form Tie Sealing System Components

Form Tie Plugs					
Sealing Plug 22mm		Sealing Plug 24mm		Sealing Plug 26mm	
Sealing Plug 22mm O.D 23mm x 39mm long To be used with Form Tie sleeve with Internal Dia. 22mm		Sealing Plug 24mm O.D 25mm x 51mm long to be used with Form Tie sleeve with Internal Dia. 24mm		Sealing Plug 26mm O.D 27mm x 51mm long To be used with Form Tie sleeve with Internal Dia. 26mm	

Sealing UFO's & Connectors					
Sealing UFO Rings			Sealing Connectors		
Sealing UFO 12mm Sleeve/rod O.D 16mm to 20mm		Use Sleeve/rod O.D 16mm to 20mm			
Sealing UFO 17mm Sleeve/rod O.D 24mm to 30mm		Use Sleeve/rod O.D 24mm to 30mm			
Sealing UFO 24mm (use with Sealing Connector 15mm)		Sealing Connector 15mm To be used with Tie-rod O.D 15mm			
Sealing UFO 31mm (use with Sealing Connectors 20mm & 23mm)		Sealing Connector 20mm & 23mm To be used with Tie-rod O.D 20mm			
Sealing UFO 39mm (use with Sealing Connectors 26mm & 30mm)		Sealing Connector 26mm & 30mm To be used with Tie-rod O.D 26mm			