



# Ferrostop 415

## HYDROPHILIC SWELLABLE WATERSTOP



Ferrostop 415 is a hydrophilic waterstop which has the combined properties of a rubber based sealant and butyl sealant. It swells in a controlled manner when exposed to moisture and forms a self-healing joint material around the substrate. However, the material does not expand prematurely and does not absorb water from the fresh concrete poured against it, and helps to minimise any pre-expansion when the joint comes in contact with water. Ferrostop 415 unlike many other clay-based products will not expand to a point that the hydration process leads to the possible disintegration of the waterstop. It is ideal for use in both horizontal and vertical construction joints.

### Advantages

- Excellent for application to rough concrete surfaces.
- Easy to install by bonding, nailing or casting into joint faces with the aid of suitable adhesive.
- No Adhesive or cutting required for overlapping.
- No premature expansion; allows concrete to gain strength before expansion.
- Excellent performance : Swelling properties unaffected by long term cyclic wetting and drying; limited loss of integrity of waterstop.
- Sustains effective seal in wet conditions.
- Solves detailing problems in construction.

### Area of use

- Joints in potable water tanks, secant piled walls and diaphragm walled basements, pilecaps, etc.
- Civil Engineering Works, tunnels, box culverts, sanitary and stormwater manholes, etc.
- Above and below grade precast panels.
- Wrapping around pipe penetrations.
- Preventing the passage of water through non-movement joints in new cast in-situ concrete and between new and existing concrete.
- Integral sealing for joints in cast in-situ concrete where conventional waterstops are impractical to use due to limited access.

### Standards and compliances

Ferrostop 415 is manufactured under standard which conform to BS 1881 Part 208:1996

## Physical properties

Properties	Value
Generalization	Synthetic rubber
Colour	Black

## Technical properties

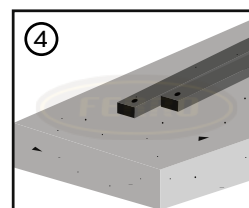
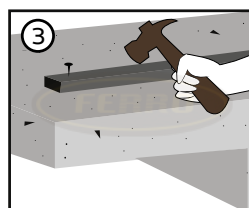
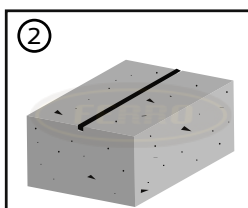
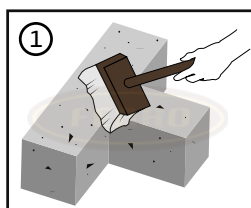
Properties	Values	Standards
Specific gravity	Approx. 1.40/1.45	ASTM D-71
Hydrocarbon content, %	Approx. 47 min	ASTM D-297
Solid content, %	Approx. 99±1	-
Shore A Hardness	Approx. 15±5	ASTM D-2240
Head pressure	Tested to approx. 60 m.	-
Application temp, °C	Approx. -22 to +52	-
Service temp range, °C	Approx. -34 to +82	-
Water swelling rate		-
- 7 days	Approx. 106%	
- 14 days	Approx. 118%	
- 28 days	Approx. 120%	
- 56 days	Approx. 131%	

## Method statement

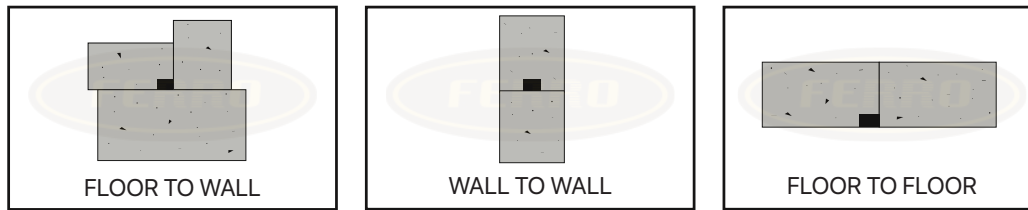
## Ferrostop 415

### How to install

- 1) Clean the concrete surface with a wire brush to free of dust and stain.
- 2) Place a Ferrostop 415 give centering cross section away from the edge the concrete and concrete should be at least 5 cm. or more.
- 3) concrete nailed every 30 cm. of moving from poured concrete or glue the rubber do not wish using nails.
- 4) distance of 5 cm every 5 m. (1 roll 5 m.)



## Installation characteristics choices



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## Limitations/Cautions

- Should not use to seam, factories and roads.
- Avoid exposure to oil. And solvents.

## Technical support

Customers can contact the sales department of the company at [sale@ferroproduct.co.th](mailto:sale@ferroproduct.co.th) to inquire about product usage methods. Furthermore they can also request information or organize the following activities :

1. Request for the latest updated data sheet.
2. Request for the sale conditions document and the product price list.
3. Schedule a technical staff visit to demonstrate the products at the customer's job site by filling out the "Demonstration request form" prior to the product purchase.
4. Schedule a technical staff visit to provide product usage training to the customer's workers at the job site by filling out the "Worker training request form".
5. Schedule training for the customer's foreman at the company's training center (Ferro training center) by filling out the (Foreman training request form).

## Coverage

Depending on the area of use.

## Package

5 m./roll  
55 cm./roll

## Cleaning tools

Should clean walls of the groove and free of dust and dirt.

## Health and safety instructions

- May cause health effect :
- Eye : May cause eye irritation.
- Skin : May cause skin irritation.
- Ingestion : May cause vomiting or nausea if swallowed.
- Inhalation : No serious effect.
- Inhalation : Move to fresh air, oxygen support if necessary. In case of breathing difficulty is occurred continuously, should taken care by medical treatment.
- Eye : Flush with clean water at least 15 minute. if irritation still exist, see medical attention.
- Skin : Clean the irritation area with mild soap and water, if burning is still exist, see physician immediately.
- Ingestion : Do not induce vomiting. call physician immediately.

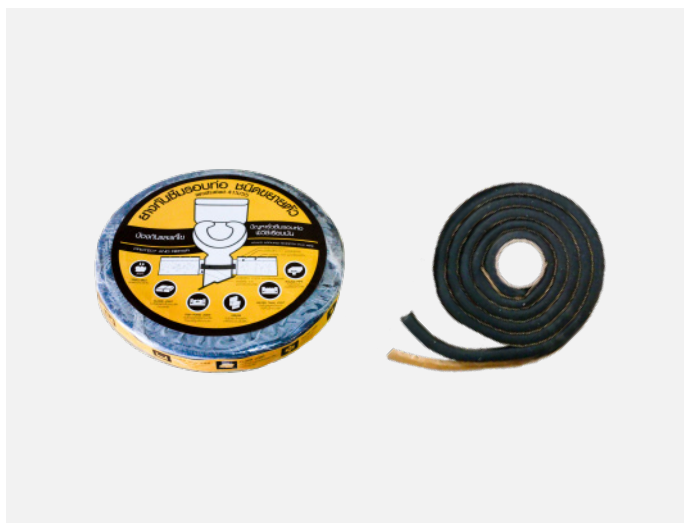


## Disposal

Ferrostop 415 is composed of Butylrubber and Bentonite please do not put waste into public drainage, It is recommended to let the cement dried with sunlight.

## Transportation and shipping data

THAI DOT : Not regulated.      IMO : Not regulated.  
USA DOT : Not regulated.      IATA : Not regulated.  
RID/ADR : Not regulated.



### Size

Width 25 mm. thick 20 mm.

- 5 m./roll  
Code FG-IC-8858915241078
- 55 cm./roll  
Code FG-IC-8858915241276

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Product warranty: The company is pleased to replace any product that is clearly proven to be defective due to manufacturing processes with a new products of equal value to the portion that is defective. Refunds are not available. Customers must be notify us of replacement within 7 days from the order date. Additionally customers can't claim damages resulting from direct or indirect using of the materials, as well as delays in delivery by the company. Furthermore replacements can't be made for errors in using that arise from customers negligence without consulting the sales staff or technical documentation provided by the company. The company reserves the right to amend manufacturing formulas or new packaging designs without prior notice. Therefore customers must be request the data sheet and sale conditions from the company before actual using and before each purchase. By doing so the company assumes that customers have understood and agreed to the company's sale conditions before using. (Company products are only allowed for using by individuals who have completed training provided by the company). \*For further data please refer to the sale conditions from the company's sale department at [sale@ferroproduct.co.th](mailto:sale@ferroproduct.co.th).

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**ISO 9001 & ISO 14001**



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