

ADCOR[®] ES

Engineered swell hydrophilic waterstop strip

Product Description

ADCOR[®] ES is a specially engineered, swellable, conformable synthetic waterstop strip that expands when in contact with water. The engineered swell design of ADCOR[®] ES minimizes the potential for concrete spalling and cracking versus traditional hydrophilic waterstops. When fully encapsulated by poured concrete, the expansive forces form a seal against concrete faces. The seal resists hydrostatic pressure, stopping water from entering sub-structures. ADCOR[®] ES is a unique product that has been specifically developed to provide better performance than bentonite or conventional swellable rubber waterstops. Superior performance arises from:

- Controlled, reproducible, volumetric expansion
- Cohesive strength maintained after volumetric expansion and during wet-dry cycling
- Malleable and plastic, enabling easy application to a variety of concrete profiles.

Product Advantages

- Engineered swell reduces risk of concrete spalling
- Conformable — can be installed onto a variety of irregular substrates
- Controlled expansion reduces the need for product replacement due to premature expansion
- Retains cohesive strength at both original and expanded volume
- No need for protective steel mesh
- Volumetric expansion min 100%
- Simple overlap jointing on site
- Reproducible swell after wet-dry cycling
- Contains no sodium bentonite

Applications

- Horizontal and vertical construction joints in concrete structures
- Casting new concrete against existing
- Pipe penetrations through floors and walls

System Components

ADCOR[®] ES

1.0 in. x 1/2 in. (25.4 mm x 12.7 mm) waterstop strip, supplied in 16 ft (4.9 m) rolls.

ADCOR® ES Adhesive

A butyl based adhesive for securing ADCOR® ES to concrete, steel and plastic substrates. Supplied in 29 fl oz (0.85 L) tubes.

Design

GCP recommends the use of waterstops in all construction joints, subject to hydrostatic pressure. Waterstop networks must be continuous through all joints and penetrations if they are to be effective. Contact GCP regarding specific applications where movement is expected.

Installation

1. Concrete surfaces must be clean and free of all contaminants. Remove all debris and loose concrete.
2. On irregular concrete faces, apply a 1/2 in. (12 mm) bead of ADCOR® ES Adhesive as bedding for ADCOR® ES. Estimated coverage rate of ADCOR® ES Adhesive is 30 linear feet per tube on porous concrete or irregular surfaces when applied at a 1/2 in. (12 mm) bead.
3. Secure ADCOR® ES using masonry nails 1 1/2–2 in. (40 mm– 50 mm) long with a washer 3/4 in. (20 mm) in diameter. Hilti EM6-20-12 FP8 shot fired fixings with 1/4 in. (6 mm) nuts and 3/4 in. (20 mm) diameter washers may also be used. Fixings should be spaced at a maximum of 12 in. (300 mm) centers with a minimum spacing that ensures proper contact to substrate.
4. For pipe penetrations, ADCOR® ES Adhesive must be applied to dry substrates only. Apply a 1/2 in. bead of ADCOR® ES Adhesive and tool with a brush or trowel. Wait until surface is dry to touch, then press ADCOR® ES firmly into place. Estimated coverage rate of ADCOR® ES Adhesive is 60 linear feet per tube on smooth concrete or pipe surfaces when applied at a 1/2 in. (12 mm) bead.
5. ADCOR® ES joints should overlap a minimum of 4 in. (100 mm), ensuring full contact between jointed pieces.
6. ADCOR® ES can be bent around corners; however, on complex geometry, use ADCOR® ES Adhesive to fill any gaps.
7. Any damaged sections should be removed and repaired with a new section of ADCOR® ES.
8. Keep ADCOR® ES dry prior to pouring concrete.

Concrete Placement

1. Normal weight structural concrete should be placed carefully to avoid damage to the waterstop.
2. ADCOR® ES should be encapsulated with a 3 in. (76.2 mm) concrete cover minimum.

Health & Safety

ADCOR® ES

There is no legal requirement for a SDS (Safety Data Sheets) for ADCOR® ES. For health and safety questions on this product, please contact GCP.

ADCOR® ES Adhesive

Read the product label and SDS (Safety Data Sheets) before use. Users must comply with all risk and safety phrases.

Storage & Handling

ADCOR® ES should be stored in its original unopened packaging until ready for installation and kept dry prior to pouring concrete. Dispose of any materials in accordance with the requirements of local authorities having jurisdiction.

Limitations

Not suitable for use in movement joints.

Not suitable for use with pre-cast concrete components.

Physical Properties

PROPERTY	TYPICAL VALUE
Color	Green
Size	1.0 in. x 1/2 in. x 16 ft (25.4 mm x 12.7 mm x 4.9 m) rolls
Packaging	6 rolls per case
Hydrostatic Head Resistance	231 ft (70m)
Adhesion to Concrete using ADCOR® ES Adhesive	Excellent

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Last Updated: 2018-08-24

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