



Vetotop AC440

High performance crack-accommodating elastomeric acrylic protective and decorative coating for concrete and masonry

Uses

- To protect atmospherically exposed reinforced concrete structures from attack by acid gases, chloride ions, oxygen and water, where there is a danger of subsequent cracks appearing within the substrate
- Suitable to protect all types of structures, cementitious substrates, masonry and aggressive marine and coastal environments.

Product Description

Vetotop AC440 comprises a single component penetrating primer and a single component elastomeric pigmented coating, both ready for immediate site use.

Vetotop AC440 is an elastomeric, water based protective coating based on a special acrylic polymer. It provides excellent elongation and recovery, low dirt pick-up, resistance to aggressive elements, UV light and rain. It is available in a wide range of colours.

Advantages

- True elastomeric coating with excellent elongation and recovery properties which are maintained at sub-zero temperatures
- Excellent barrier to carbon dioxide, chloride ions, oxygen and water
- UV-resistant
- Water-based
- Wide range of decorative colours

Standards Compliance

- BS EN1504-2-Surface Protection Systems Principles 1.3,2.2 and 8.2.
- Fire tested to BS 476, Pt 7: 1987. Spread of flame - Class 1.
- Fire tested to BS 476, Pt 6: 1989. Propagation index I - 0.0. Sub index i - 0.0.
- Building Regulations rating - class 0
- Fire rating EN 13501-1 2007 Euroclass B.

Technical Data

Vetotop AC440	Typical Values
Bond Strength by pull off	> 2.5 MPa
Water vapour permeability	0.8 Meters
Carbon dioxide permeability	> 125 Meters
Surface drying Ballotini method	2 Hours
Volume Solids	45%
Equivalent thickness of 30 MPa concrete cover	> 270mm
Carbon dioxide permeability after 2000 hours QUV	91 Meters
Reduction in chloride ion penetration when Vetoprime AP443 is used	> 85%
Theoretical wet film thickness per coat	200 microns
Overcoating time @ 20°C	3 Hours
Minimum application temperature	5 °C

Though the product is UV stable, however slight yellowing or discoloration is expected with prolonged exposure to UV light with out affecting the functional properties of the product

Design Criteria

The coating should be applied in two coats to achieve a total dry film thickness of not less than 180 microns. To achieve the correct protective properties, Vetotop AC440 system must be applied on to the substrate at the coverage rates recommended.

Usage Instructions

Preparation

All surfaces should be dry and free from contamination such as oil, grease, loose particles, decayed matter, moss, algal growth, laitance, and all traces of mould release oils and curing compounds. This is best achieved by lightly grit blasting the surface. Where moss, algae or similar growths have occurred, treatment with a proprietary biocide should be carried out after the grit-blasting process.

Where application over existing sound coatings is required, trials should be conducted to ensure compatibility and retention of the bond between the underlying coating and the substrate.

It is essential to produce an unbroken coating of Vetotop AC440. To ensure this is achieved, surfaces containing blow- holes or similar areas of pitting should first be filled using Vetorep CR523, a cementitious fairing coat. Vetorep CR523 should be allowed to cure for approximately 48 hours dependent on ambient conditions before the application of Vetotop AC440.

Application

In order to obtain the protective properties of the Vetotop AC440, it is important that the correct rates of application and over-coating times are observed.

Application should not commence if the temperature of the substrate is below 5°C.

Any areas of glass should be masked. Plants, grass, joint sealants, asphalt and bitumen-painted areas should be protected during application.

Vetoprime AP443 should be applied in one or more coats until the recommended application rate of 0.4 liter per square meter has been achieved. This is best accomplished by using portable spray equipment. If in doubt about the condition of the substrate, Saveto Technical Center should be consulted.

Allow the primer to dry for a minimum of 8 hours (at 20°C), longer at lower temperatures. Under no circumstances should the primer be overcoated with Vetotop AC440 until the surface is properly dry.

Vetotop AC440 may be applied by the use of suitable brushes or rollers. Queries relating to spray application should be referred to Saveto Technical Department prior to the commencement of work.

All primed substrates should be treated with two coats of Vetotop AC440. The material should be stirred thoroughly before use. The first coat should be applied to all areas by the use of suitable brushes or rollers to achieve a uniform coating with a wet film thickness not less than 400 microns. This coat should be allowed to dry before continuing.

The second coat of Vetotop AC440 should be applied exactly as detailed above.

Under poor drying conditions at low temperatures it may be more practical to apply three thinner coats (270 microns wet film thickness each) of Vetotop AC440 to achieve better 'through-drying'. This method will achieve the correct recommended dry film thickness.

Cleaning

Vetorep CR523 and Vetotop AC440 should be removed from tools and equipment with clean water immediately after use. Vetoprime AP443 should be removed from tools and equipment using Vetont Solvent XX400.

Packaging & Coverage

Product	Pack Size	Consumption
Vetoprime AP443	5 Liter Can	0.4 Liter/m ²
Vetotop AC440	20 Kg Bucket	0.22 KG/m ² /Coat

Stated consumptions data are for general guidance. Actual consumption depends on the nature of substrate, method of application and wastage.

Shelf Life & Storage

Original sealed buckets of Vetotop AC440 and Vetoprime AP443 has a shelf life of 12 months provided it is stored clear of ground in a dry and shaded place below 35°C.

Limitations

- Vetotop AC440 is formulated for application to clean, sound concrete or masonry.
- Where application over existing sound coatings or paints is required, trials should be conducted to ensure compatibility and retention of the bond between the underlying coating and the substrate.
- When applied over existing coatings or paints, the performance characteristics of Vetotop AC440 may be impaired and its fire rating invalidated.
- Compatibility and soundness should be assessed on a trial area.
- Application Vetoprime AP433 should not commence if the temperature of the substrate is below 2°C.
- Application of Vetotop AC440 should not commence if the temperature of the substrate is below 5°C.
- Vetotop AC440 should not be applied where there is a likelihood of exposure to frost within 48 hours of application.
- Do not apply in windy conditions where early-age dust adhesion may occur, or where rain is likely within 2 hours at 20°C or 20 hours at 5°C (up to 80% RH).
- Do not be apply when the prevailing relative humidity exceeds 90%.
- Vetotop AC440 should not be considered for areas subjected to exposure to ponded water. In such cases use Vetotop AC442.
- The elastomeric properties and high tear strength of Vetotop AC440 make it unsuitable for use in areas subject to direct physical attack by vandals. Where appropriate, Vetotop AC442 should be considered.
- Vetotop AC440 should not be used on soffits subject to possible water ingress. In these cases use Vetotop AC442.
- For further information contact Saveto technical department.

Health & Safety

Vetorep CR523 contains cement powders which, when mixed or become damp, release alkalis which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes.

Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. The use of barrier creams provide additional skin protection.

In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

Vetoprime AP443, and Vetonit Solvent XX400 should not come in contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours.

Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

Vetorep CR523 is non-flammable. Vetoprime AP443, and Vetonit Solvent XX400 are flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO2 or foam. Do not use a water jet.

Vetotop AC440 is non-flammable

Additional Information

Saveto manufactures a wide range of construction chemicals and specialty products for various applications divided into the following product groups:

- Concrete Repair, Grouts and Enhancement.
- Wall & Facade Systems.
- Flooring and Coating Systems.
- Sealants and Joints.
- Plasters & Renders.
- Putties Finishes.
- Tiling Systems.
- Waterproofing.
- Primers & Ancillary Products.
- Specialty Products.

Saveto also provides various technical information such as CAD details, detailed method statements, specification clauses, application manuals, product selectors and technical support both in contractors and consultants offices as well as construction sites.

For further information on these products and systems kindly check our website or contact your local Saveto representative.

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