



Vetotop AC442

High performance aliphatic acrylic protective & decorative coating for concrete and masonry

Uses

- To protect atmospherically exposed reinforced concrete structures from attack by acid gases, chloride ions, sulphates, oxygen and water.
- Suitable to protect all types of structures, cementitious substrates, masonry and aggressive marine and coastal environments.
- Suitable for new and existing structures.

Product Description

Vetotop AC442 comprises a single component penetrating silane-siloxane primer and a single component pigmented coating, both ready for immediate site use. Vetoprime AP443 is supplied as a clear liquid and is based on a silane-siloxane dissolved in a penetrating organic carrier. Vetoprime AP443 is reactive and capable of producing a chemically-bound hydrophobic barrier, thus inhibiting the passage of water and water-borne contaminants. Vetotop AC442 is an aliphatic acrylate, solvent based protective coating, providing outstanding resistance to aggressive elements, UV light and rain. It is available in a wide range of colours.

Advantages

- Excellent barrier to carbon dioxide, chloride ions, sulphates, oxygen and water.
- Allows water vapour to escape from the structure.
- Highly UV resistant aliphatic acrylic gives exceptional resistance to the effects of long-term weathering.
- Highly durable in all climatic conditions.
- Wide range of decorative colours.
- Excellent resistance to dirt pick-up.

Standards Compliance

- Approved by the British Board of Agreement under Certificate No. 92/2824.
- Fire tested to BS 476, Part 7: 1987. Spread of flame - Class 1.
- Fire tested to BS 476, Part 6: 1989. Propagation index I - 1.5.
- Sub index i1 - 1.3. Building Regulations rating -Class O.

Technical Data

Vetotop AC442	Typical Values
Volume solids	40-45%
Carbon dioxide diffusion resistance.	
Equivalent thickness of air-Initial:	>250
2,000 hours QUV weathered:	>250
Equivalent thickness of 30 N/mm ² concrete cover	>500mm
Water vapour diffusion resistance	SD 0.98M @ 150 Microns Dift
Reduction in chloride ion penetration	>99%
Chloride ion diffusion coefficient 2,000 hours QUV weathered	No Chloride Ion Diffusion after 600 days immersion
Freeze/thaw salt scaling (50 cycles) ASTM C-672-84) Good quality concrete (Control)	Unaffected Severe scaling
Fire testing (BS 476, Part 7:1987) Spread of flame:	Class 1

Design Criteria

The coating should be applied in two coats to achieve a total dry film thickness of not less than 150 microns. To achieve the correct protective properties, Vetotop AC442 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 AC442. 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 AC442.

Application

In order to obtain the protective properties of the Vetotop AC442 system, it is important that the correct rates of application and over-coating times are observed.

	Vetoprime AC443	Vetotop AC442
Number of Coats	Flood Coat	2
Theoretical wet film thickness per coat	N/A	175 microns
Over-coating time:		
@ 2°C	4 Hours	12 Hours
@ 20°C	2 Hours	6 Hours
@35°C	80 Minutes	4 Hours

Application should not commence if the temperature of the substrate is below 2°C or above 40°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 of the knapsack-type. If in doubt about the condition of the substrate, Saveto Technical Center should be consulted.

The primer should be allowed to dry for a minimum of two hours (at 20°C) and 1 hour (at 35°C) before application of Vetotop AC442. Under no circumstances should the primer be over-coated until the surface is properly dry.

Vetotop AC442 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 AC442. 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 175 microns and not greater than 225 microns. This coat should be allowed to dry before continuing.

The second coat of Vetotop AC442 should be applied exactly as detailed above, again achieving a wet film thickness not less than 175 microns and not greater than 225 microns.

Cleaning

Vetorep CR523 should be removed from tools and equipment with clean water immediately after use. Vetoprime AP443 and Vetotop AC442 should be removed from tools and equipment using Vetonic Solvent XX400.

Packaging & Coverage

Product	Pack Size	Consumption
Vetoprime AP443	20 Liter Can	0.4 Liter/m ²
Vetotop AC442	20 Kg Bucket	0.2 k/m ² per 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 AC442 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 AC442 System 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 AC442 may be impaired and its fire rating invalidated.
- Compatibility and soundness should be assessed on a trial area.
- Application should not commence if the temperature of the substrate is below 2°C or above 60°C.
- 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 AC443, 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.

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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