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, and 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 is a single-component elastomeric pigmented coating, 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 colors.

Advantages

- Highly 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 colors.

Standards Compliance

- EN 1504-2 Surface Protection System Principles 1.3, 2.2, 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. Subindex i - 0.0.
- Fire rating EN 13501-1 2007 Euroclass B.

Technical Data

Vetotop AC440	Typical Values @ 25 °C
Color & Appearance	Colored liquid
Density (kg/liter)	1.3
Solid Content (weight%)	56 ± 2
Number of Coats	2
Over Coating Time (Hours)	24
Full Cure Time (Days)	7
Application Temperature (°C)	10 to 40
Adhesion Strength (EN 1542) (MPa)	> 2.5
Permeability to Water Vapor (Meters) (EN ISO 7783-1, 2)	0.8
Permeability to CO_2 (EN 1062-6) (Meters)	> 125
Surface Drying Ballotini Method (Hours)	2
Equivalent Thickness of 30 MPa Concrete Cover (mm)	> 270
Carbon dioxide permeability after 2000 hours QUV (Meters)	91
Reduction in chloride ion penetration when Vetoprime AP443 is used (%)	> 85
Theoretical wet film thickness per coat (microns)	200
Overcoating time (Hours)	3
Application Temperature (°C)	Minimum 5

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

Surface 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 mold release oils and curing compounds. This is best achieved by light 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, conduct trials 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, surfaces containing blowholes or similar pitting areas should first be filled using Vetorep CR523, a cementitious fairing coat. Allow Vetorep CR523 to cure for approximately 48 hours, dependent on ambient conditions, before applying Vetotop AC440.

Application

To obtain the protective properties of the Vetotop AC440, it is important to observe the correct rates of application and over-coating times.

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

Mask any areas of glass. Protect plants, grass, joint sealants, asphalt, and bitumen-painted areas during application.

Apply Vetoprime AP443 in one or more coats until the recommended application rate of 0.7 m^2/liter/coat @50 microns thickness.. This is best accomplished by using portable spray equipment. If in doubt about the condition of the substrate, contact the Saveto Technical Center consultation.

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. Refer to Saveto Technical Department for queries relating to spray application before the commencement of work.

Treat all primed substrates with two coats of Vetotop AC440. Stir the material thoroughly before use. Apply the first coat to all areas using suitable brushes or rollers to achieve a uniform coating with a wet film thickness of fewer than 400 microns. Allow this coat should to dry before continuing.

Apply the second coat of Vetotop AC440 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

Remove Vetorep CR523 and Vetotop AC440 from tools and equipment with clean water immediately after use. Remove Vetoprime AP443 from tools and equipment using Vetonit Solvent XX400.

Packaging & Coverage

Product	Pack Size	Consumption
Vetoprime AP443	20 Liters Container	0.7 m^2/liter/coat @50 microns thickness
Vetotop AC440	20 kg Container	2 m^2/kg/coat @200 microns thickness

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

Shelf Life & Storage

The original sealed containers of Vetotop AC440 and Vetoprime AP443 have 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 impair, and its fire rating invalidated.
- Assess the compatibility and soundness in 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 apply when the prevailing relative humidity exceeds 90%.
- Vetotop AC440 should not be considered for areas subjected to exposure to ponded water.
- The elastomeric properties and high tear strength of Vetotop AC440 make it unsuitable for use in areas subject to direct physical attack by vandals.
- Vetotop AC440 should not be used on soffits subject to possible water ingress.

For further information contact Saveto technical department.

Health & Safety

Vetorep CR523 contains cement powders that release alkalis that can harm the skin when mixed or damp. 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 provides additional skin protection.

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

In contact with the 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 contact the skin and eyes or be swallowed. Ensure adequate ventilation and avoid inhalation of vapors.

Some people are sensitive to resins, hardeners, and solvents. Wear suitable protective clothing, gloves, and eye protection. If working in confined areas, use suitable respiratory protective equipment. The use of barrier creams provides additional skin protection. In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In contact with the 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 a fire, extinguish with CO_2 or foam. Do not use a water jet.

Vetotop AC440 is non-flammable.

Additional Information

Saveto manufactures a wide range of construction chemicals and speciality products for various applications.

For further information on these products and systems

kindly check our website or contact your local Saveto representative.

Legal Disclaimer

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