



Vetotop EC498

Solvent free high performance, high build epoxy flooring system

Uses

- Floor coating for a variety of industrial applications such as: production assembly areas, workshops, dairies, bottling plants, breweries, pharma plants, kitchens, showrooms, etc.
- Aircraft hangers, anti-slip floors, ramps & high traffic.
- Wet working areas subject to chemical spillage.
- Vehicle production factories and parks.

Product Description

Vetotop EC498 is a two component high performance solvent free epoxy coating system that adheres perfectly to concrete. Once cured, the product has excellent abrasion and chemical resistance. Vetotop EC498 provides an attractive hard wearing and easily cleanable floor finish. Its use on floors will enhance lighting in the environment due to the product reflective properties.

Advantages

- Superior glossy and leveled finish.
- High abrasion and impact resistance.
- Ease of application.
- High chemical resistance.
- Low maintenance costs.
- Hygienic, impervious and easily cleanable.
- Slip-resistant finish can be obtained.
- Available in 8 standard colors with possibility of custom RAL colors.
- High bond, stronger than concrete cohesive strength.
- Economic installation.

Standards Compliance

- BS EN476:2009 as class 1 in flame spread.

Design Criteria

Vetotop EC498 is designed to be a hard wearing two coat application on cementitious substrates. The applied product will be resistant to water as well as a wide range of chemicals.

Technical Data

Vetotop EC498	Typical Values
Solid Content (%Volume)	100
Recommended DFT / coat	200-300 μ m
Pot Life @ 15°C/54°F (min)	50
Pot Life @ 40°C/104°F (min)	15
Thin Film Dry Time (hours) @ 15°C	12
Thin Film Dry Time (hours) @ 40°C	3
Mixed Density @ 20°C (kg/L)	1.6
Max Recoat/Topcoat Time @ 15°C (hours)	48
Max Recoat/Topcoat Time @ 40°C (hours)	24
Application Maximum Relative Humidity (%)	75
Compressive Strength ASTM C579	75 N/mm ²
Bending Strength	48 N/mm ²
Tensile Strength ASTM C307	36 N/mm ²
Bond Strength to Concrete ASTM D4541	>2 N/mm ²
Taber Abrasion ASTM D4060 CS17 Wheels (mg loss/1000cycles)	≤ 45
Water Absorption ASTM D413 (maximum)	0.004
Porosity with no sealer NACE Sand TM-01-74	0
Hardness Shore D	80
Impact Resistance ASTM D2794	10 Joules

Chemical Resistance

Chemical	Concentration	Resistance
Lactic Acid	10%	Excellent
Citric Acid	10%	Excellent
Hydrochloric Acid	30%	Excellent
Sodium Hydroxide	50%	Excellent
Acetic Acid	10%	Excellent
Butanol	-	Excellent
Crude Oil	-	Excellent
Nitric Acid	25%	Discoloration
Sulphuric Acid	50%	Excellent
Phosphoric Acid	50%	Discoloration
Mineral Oil	10%	Excellent
Ammonia	10%	Excellent
Sea Water	-	Excellent
Jet Fuel	-	Excellent
Skydrol	-	Discoloration

Note: *The above data for a 7-day cured product at 25°C. Vetotop EC498 is resistant to acids and alkali of medium concentrations, mineral oil products and solvents.

Usage Instructions

Surface Preparation

The surface should be sound, clean, free from loose material, grease, laitance, dirt curing compound, etc.

Laitance and weak surface layer shall be removed using mechanical methods such as grinding or blasting in order to provide a sound well profiled surface. All necessary repairs should be made prior to application by using epoxy mortar from Vetorep ER range.

New concrete floors shall be at least 28 days old with moisture content of less than 5% (shall earlier application be required testing of substrate for moisture conditions shall be made).

Priming

If concrete surface is porous, or w/c ratio is >0.5 it is recommended to use Vetoprime EP491 as a film-forming primer or EP490 as a penetrating primer for porous substrates.

Vetoprime EP491 should be mixed in the proportions supplied. Add the entire contents of the hardener can to the base can. When thoroughly mixed, preferably using a slow speed mixer, the primer should be applied in a thin, continuous film using rollers or stiff brushes. Work the primer well into the surface of the concrete taking care to avoid ponding or over application. The primer should be left to achieve a tack-free condition before applying the top coat.

Mixing Vetotop EC498

In a separate mixing vessel, use a slow speed mixer to mix the base, hardener for 3 minutes. Mix these components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.

Application

The application and cure temperature must be above 15°C. The first coat of Vetotop EC498 should be laid using a short haired lamb wool roller, or gauged squeegee to achieve a continuous coating. Ensure that loose hairs on the roller are removed before use. A minimum film thickness of 200 microns per coat should be applied for flooring system (this can be increased where specifications demand). The top coat can be applied in the same manner within 8 to 24 hours of the application of the top coat.

Antislip Aggregates

If the option of using antislip aggregates has been chosen, the base coat should be dressed with the chosen antislip aggregates as soon as possible after laying of the base coat. The recommended procedure is to completely blind the base coat i.e. apply excess dressing aggregate to completely obliterate the base coating.

Alternatively, the antislip silica particles can be broadcast in a light random dressing to provide a less dense finish, or the product can be used to obtain a smooth finish by omitting the antislip aggregates.

When the base coat has reached initial cure (after 12 hours at 20°C or 5 hours at 35°C), the excess aggregate should be vacuum cleaned from the surface.

The top coat can now be applied by a short haired roller or airless spray equipment. Care should be taken to ensure that a continuous film is achieved and the rough surface caused by the aggregate is completely sealed. This topcoat must be applied within 36 hours at 20°C (15 hours at 35°C) of the application of the resin base coat.

Expansion Joints

Expansion joints in the existing substrate must be retained and continued through the Vetotop EC498 topping. Saveto have a range of joint sealants specifically designed for flooring (see Vetoflex PS781 and Vetoflex PS782 product data sheets).

Cleaning

Tools and equipment should be cleaned with Vetonit Solvent XX400 immediately after use.

Packaging & Coverage

Product	Pack Size
Vetotop EC498	4 & 15 Liter Kits
Vetoprime EP491	4 Liter Kits
Vetoprime EP490	4 Liter Kits
Antislip Aggregates	25 Kg Bags

Product	Theoretical Coverage
Vetotop EC498	5 m ² / Liter @ 200 µm
Vetoprime EP491	8 m ² / Liter
Vetoprime EP490	8 m ² / Liter

In case of use of antislip aggregates; the consumption values for the top coat will increase by 15 to 20%. Antislip aggregate consumption:

Product	Coverage
Antislip Aggregate Fine	1.5 - 3.5 m ² / Kg
Antislip Aggregate Medium	1.2 - 3.0 m ² / Kg
Antislip Aggregate Coarse	1.0 - 3.0 m ² / Kg

Total System Thickness with antislip aggregate use:

Vetotop EC498 with Antislip Aggregates Texture	Thickness
Fine	0.75 - 1.5 mm
Medium	1.5 - 2.0 mm
Coarse	2.0 - 2.5 mm

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 bag of Vetotop EC498 has a shelf life of 12 months provided it is stored clear of ground in a dry and shaded place below 35°C.

Health & Safety

Vetotop EC498, Vetoprime EP491, Vetoprime EP490 and Vetonit Solvent XX400 should not come into contact with 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, 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.

Vetoprime EP490 and Vetonit Solvent XX400 are flammable. Keep away from sources of ignition. No Smoking. In the event of fire extinguish with CO₂ or foam.

Additional Information

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

- Waterproofing.
- Concrete Repairs, Grouts and Enhancements.
- Flooring and Coating Systems.
- Wall & Facade Systems.
- Sealants and Joints.
- Renders & Finishes.
- Plasters & Masonry.
- Tiling Systems.
- 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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