

FLOORING



Vetotop EC498

Solvent-free high performance, high build epoxy flooring system

Uses

- Floor coating for various 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 the lighting in the environment due to the product's reflective properties.

Advantages

- Superior gloss and level finish.
- High abrasion and impact resistance.
- Ease of application.
- High chemical resistance.
- Low maintenance costs.
- Hygienic, impervious, and easily cleanable.
- A slip-resistant finish.
- Available in 8 standard colors with the possibility of custom RAL colors.
- High bond, stronger than concrete cohesive strength.
- Economic installation.

Standards Compliance

- BS EN 476:2009 as Class 1 in flame spread.
- EN 1504-2
- EN 13813
- ASTM C722

Technical Data

Vetotop EC498	Typical Values
Solid Content (by Volume %)	100
Recommended DFT / coat (microns)	200 - 300
Pot Life @ 25°C/54°F (Minutes)	50
Pot Life @ 40°C/104°F (Minutes)	15
Thin Film Dry Time @ 25°C (Hours)	12
Thin Film Dry Time @ 40°C (Hours)	3
Mixed Density @ 20°C (kg/L)	1.6
Max Recoat/Topcoat Time @ 40°C (Hours)	24
Application Maximum Relative Humidity (%)	75
Compressive Strength - ASTM C579 (N/mm ²)	> 70
Bending/Flexural Strength (N/mm ²)	> 30
Tensile Strength - ASTM C307 (N/mm ²)	> 20
Bond Strength to Concrete - ASTM D4541 (N/mm ²)	> 2
Taber Abrasion - ASTM D4060 CS17 Wheels (mg loss/1000cycles)	≤ 45
Hardness Shore D	80
Impact Resistance - ASTM D2794 (Joules)	10
VOC (g/L.)	< 30
Open to Foot Traffic (Hours)	24
Open to Vehicular Traffic (Hours)	48
Service temperatures (°C)	-5 to +80

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.

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 is 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 to provide a sound, well-profiled surface. Repair All necessary repairs before application by using epoxy mortar from the Vetorep ER range.

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

Priming

Priming is not required to a good quality non-porous concrete. If the concrete surface is porous or if there is a doubt of the concrete surface quality, it is recommended to use Vetoprime EP491 as a film forming or Vetoprime EP490 as a penetrating primer for a porous concrete.

Vetoprime EP491 should be mixed in the proportions

supplied. Add the entire content of the hardener container to the base container. When thoroughly mixed, preferably using a slow speed mixer, apply the primer in a thin, continuous film using rollers or stiff brushes. Work the primer well into the concrete's surface, taking care to avoid ponding or over application. Leave the primer to achieve a tack-free condition before applying the topcoat.

Mixing Vetotop EC498

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

Application

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

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 the base coat. The recommended procedure is to blind the base coat completely, i.e., apply excess dressing aggregate to 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 the 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. Ensure achieving a continuous film and to seal the rough surface caused by the aggregate. Apply this topcoat within 36 hours at 20°C (15 hours at 35°C) of applying the resin base coat.

Expansion Joints

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

Cleaning

Clean tools and equipment with Vetonit Solvent XX400 immediately after use.

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Packaging & Coverage

Product	Pack Size
Vetotop EC498	4 or 15 Liters Kit
Vetoprime EP491	4 or 15 Liters Kit
Vetoprime EP490	4 or 15 Liters Kit
Antislip Aggregates	25 Kg Bags

Product	Theoretical Coverage
Vetotop EC498	4-5 m ² / L. @ 200 microns
Vetoprime EP491	4-5 m ² /L./coat
Vetoprime EP490	6-8 m ² / L. @ 50 microns DFT.

In the case of Antislip aggregates' use, the topcoat's consumption values will increase by 15-20%. 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 consumption data are for general guidance. Actual consumption depends on the nature of substrate, method of application, and wastage.

Shelf Life & Storage

The original sealed kit 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 contact 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 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 a fire, extinguish with CO₂ or foam.

Additional Information

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

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

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