Vetotop UL171

Medium duty polyurethane hybrid flooring system

Uses

- Where maximum flooring chemical resistance is required in food and beverage productions, pharmaceutical production, and chemical plants.
- Where smooth, even, and easy to clean surface is required, such as in Textile and film plants, warehousing and storage, confectionery production, electronic component manufacture & assembly.

Product Description

Vetotop UL171 is a single-layer, seamless, solvent-free, polyurethane flooring system with a smooth matt surface finish. It has high impact resistance and withstands abrasive wear and a wide spectrum of chemicals. The product is a 3 component system consisting of a base, hardener, and powder filler.

Advantages

- Low maintenance cost.
- Hygienic, impervious and easily cleanable.
- Available in 6 standard colors.
- High bond, stronger than concrete cohesive strength.

Design Criteria

Vetotop UL171 is designed to be a hard-wearing self smoothening single pour application on cementitious or metal substrates at thicknesses between 3 to 9 mm. The applied product will be resistant to water as well as a wide range of chemicals.

Standards Compliance

- BS 476-7-1997 as class 2 in flame spread.
- DIN 53457

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. All necessary repairs should be made before application by using Vetotop US172. New concrete floors shall be at least 5 days old and visibly dry without standing water on top. Cut the grooves according to the floor area to control shrinkage. Please contact Saveto for information.

Technical Data

Vetotop UL171	Typical Values
Compressive Strength ASTM C579-18	44 N/mm^2
Flexural Strength ASTM C580-18	15.7 N/mm^2
Tensile Strength ASTM C307-18	7.3 N/mm^2
Concrete Adhesion ASTM D4541	>3.5 N/mm^2 (Concrete failure)
Abrasion Resistance ASTM D4060-14 (1000g,1000 cycle); Taber CS17	336 mg
Coeff. Thermal Expansion ASTM C531	10.5 X 10^{-}6 /0C
Density BS 6319:Part	1970 kg/m^3
Water Absorption CP.BM 2/67/2	0 mL
Shore D Hardness ASTM D2240	> 80
Surface Spread of Flame BS 476-7-1997	Class2
Service temperatures: 9mm Service temperatures: 3mm	-25 0C to +70 0C -15 0C to +60 0C
Traffic weight	Up to 6 MT

Priming

All surfaces receiving Vetotop UL171 should be applied over a 1mm "scratch coat" Vetotop UL171. Add the entire content of the hardener tin to the base tin and mix the two primer components thoroughly for at least 2 minutes - only mix full packs. Once mixed, apply the primer immediately to the prepared substrate using stiff brushes and/or rollers. The primer should be well 'scrubbed' into the substrate to ensure full coverage, but take care to avoid over-application or 'ponding.' Allow the primer to dry before proceeding to the next stage, do not proceed whilst the primer is 'tacky' as this will lead to unsightly marks in the finished surface. Porous substrates may require a second primer coat - when the first coat is directly absorbed into the substrate - but still, observe minimum over-coating times.

Mixing

Vetotop UL171 is supplied in three pre-weighed packs (base, hardener, and aggregate), ready for immediate on-site use. Part mixing of these components is not acceptable and will affect both the performance and the finished floor's appearance. Mix using either a forced action mixer or a heavy-duty mobile mixer fitted with a jiffy-type mixing paddle. All such equipment should be of a type and capacity approved by Saveto. Mix the components in a suitably sized mixing vessel. Stir the base and hardener components individually, then empty them into the mixing vessel scrapping the edges and mix for 30 seconds. Slowly, add the content of the graded aggregate pack and mix for a further 3 minutes until obtaining a completely homogeneous material.

Application

Optimum application temperature to achieve the best flow and leveling qualities is done at 25-30°C; However, the UL171 can be applied at temperatures of 20-32ºC. Ensure sufficient labor and materials to make the mixing and subsequent application process a continuous one for any given, independent floor area. Once mixed, use the material within its specified pot life. Pour the material onto the prepared and primed substrate as soon as mixing is complete. Spread it to the required thickness using a notched trowel or a gauged spreader, with care taken not to overwork the resin, spreading evenly and slowly. After laying, roll the material immediately, using a spiked nylon roller to remove slight trowel marks and assist air release. Use a 'back and forth' technique along the same path for rolling. An overlap of 50% with adjacent paths is recommended. Further light rolling may be required to remove surface imperfections or for subsequent release of trapped air but should be before the setting of the product.

Floor Joints

Follow all existing expansion or movement joints through the new floor surface.

Cleaning

Remove Vetoprime UP170 and Vetotop UL171 from tools and equipment with water immediately after use. Remove hardened material mechanically..

Packaging & Coverage

Product	Pack Size	Theoretical Coverage
Vetotop UL171	28 kg Kit	1.9 kg/m² @ 1mm thickness
Vetoprime UP170	3 kg Kit	10 m² / 3 kg kit

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 UL171 has a shelf life of 12 months, provided it is stored clear of ground in a dry and shaded place below 25°C.

Health & Safety

Vetotop UL171 is irritant and harmful; therefore, avoid direct contact with eyes or skin. It is recommended to use protective gloves and goggles during application. In case of contact with eyes, clean immediately with plenty of clean cold water and seek medical advice. Ensure adequate ventilation when using the product. In case of contact with skin or eyes, rinse with plenty of clean water and seek medical advice. Keep away from sources of ignition. No Smoking. In the event of fire extinguish with CO_2 or foam.

Refer to product(s) MSDS for further information.

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.