

PENTENS E-603

High Performance Epoxy Floor Coating

Product Data Sheet

Description

PENTENS E-603 is a two-component solvent-based epoxy resin coating system that is designed specifically for industrial use.

The cured film forms a hard but flexible coating with excellent adhesion to clean concrete, sand/cement and granolithic screeds as well as certain metal surfaces. It cures to form a semi-gloss, impervious finish which is easily cleaned.

Uses

To provide a hardwearing, easy-to-maintain, attractive floor coating in areas where high resistance against chemical attack is required. It is suitable for use in:

- Production assembly areas
- M & E room
- Staircase
- TNB room
- Workshops
- Dairies
- Soft drink production
- Bottling plants
- Breweries
- Kitchens
- Showrooms etc.

It is particularly suitable for use in wet working areas and areas where chemical spillage is likely, e.g. plating processing plants, dye works etc.

Advantages

- Easy application.
- Super adhesive strength.
- Low maintenance cost.
- High mechanical strength.
- Easily-cleaned surface.
- High resistance against a wide range of industrial chemicals.
- Hygienic - impervious finishing provides easily-cleaned surface. (Such as acid, alkali, solvent etc.)
- Attractive – available in a range of standard colors as well as clear grade to improve the working environment.
- Low viscosity.
- Short waiting time.

Technical & Physical Data

The values given below are average figures achieved in laboratory tests at 20°C and 35°C. Actual values obtained on site may show minor variations from those quoted.

	@20°C	@34°C
Pot Life	40 mins	30 mins
Tack Free Time	3-4 hrs	2-3 hrs
Time Between Coats	12-16 hrs	8-12 hrs
Initial Hardness	24 hrs	18 hrs
Full Cure	7 days	5 days
Dry Film Thickness (include primer)	0.3mm (approx)	
Abrasive Test (g) – Taber CS-17, 1000g , 1000 Cycles ASTM C501	0.042	
Storage	Store in a dry, cool place	
Shelf Life	1 year when unopened and undamaged.	
Packaging		
■ E-603A	4kg /pail & 20kg /pail	
■ E-603B	1kg /pail & 5kg /pail	
Consumption	0.3kg/m ² /2 coats	
Chemical Resistance (ASTM D1308-02(2007)	No objectionable alteration in the surface	
Sea Water		
Distilled Water		

Chemical Resistant Properties

PENTENS E-603 is resistant to a wide range of chemicals. Specific data is available upon request.

Good housekeeping is essential in areas where chemical spillage is likely to occur. It is especially important that such spillage should not be allowed to dry to avoid excess concentration of chemicals.

Limitations

PENTENS E-603 should not be applied onto surfaces known likely to suffer from:

- Temperatures below 5°C
- Rising dampness.
- Relative humidity greater than 75% RH
- Very heavy traffic such as sound work benches, drink machines etc.
- Asphalt floor & PVC tiles or sheet

Application Instructions

Surface Preparation

It is essential that PENTENS E-603 is applied to sound, clean and dry substrates in order to achieve maximum adhesion between the floor coating and substrate.

PENTENS E-603 is a relatively thin coating, therefore substrate must be in fine texture. Any surface irregularities may show through and cause excessive wear on high spots which might also change the perceived color of the coating.

New Concrete Floors

Unless water content is specially reduced, the floor should be at least 28 days old or a maximum of 4% in moisture content and primed with a layer of PENTENS E-008 Solvent Free Epoxy Primer.

Old Concrete Floors

A sound and clean substrate is essential to achieve maximum adhesion. Light grit blasting or acid etching should be carried out. Oil and grease penetration should be removed by hot compressed air treatment and primed with PENTENS E-008 Solvent Free Epoxy Primer.

Steel Substrates

Steel substrates should be grit-blasted according to surface quality and primed with an epoxy primer.

Epoxy Screed

PENTENS E-603 can be applied to PENTENS E-502 epoxy resin screeds. High spots or trowel marks should be rubbed away and dust and other debris removed by vacuum cleaning.

Mixing

Before application, both components of PENTENS E-603 are carefully re-stirred by using a slow-rotating electrical drill. PENTENS E-603 A/B are then mixed homogeneously using an electrical or pneumatic power stirrer at approximately 300-400 rpm. Mixing time is minimum 3-4 minutes but depending on the circumstances it may take longer until a homogeneous mix is achieved.

Application

Mix PENTENS E-008 A/B homogeneously prior to application using an electrical or pneumatic power stirrer. Brush-applied the mixed primer at 0.2kg/m² onto the substrate to ensure good wetting of the substrate and sealing of the pores.

PENTENS E-603 is designed for application in two coats at 0.3kg/m² to achieve a totally dry film thickness of approximately 0.3mm. The mixed PENTENS E-603 should be applied to the prepared surface using a brush or lamb wool roller.

The second coat may be applied as soon as the first coat shows initial drying (typically 6 to 8 hours). The time interval will depend on the type of surface and the ambient conditions.

Cleaning

PENTENS E-603 should be removed from tools and equipment with thinner immediately after use. Hardened material can only be removed mechanically.

Maintenance

The service life of a floor can be considerably extended by good housekeeping practices. Regular cleaning of PENTENS E-603 may be carried out using a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures up to 50°C.

Safety

PENTENS E-603 should not come in contact with skin and eyes or swallowed. Ensure adequate ventilation and avoid inhalation of its vapors when using the products. The smell may cause irritation to people who 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 provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, followed by 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 treatment immediately – **do not** induce vomiting. PENTENS E-603 is flammable. Keep away from sources of ignition. In the event of fire, extinguish with CO₂ or foam. Do not use a water jet.