

Data sheet C731

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PML Epoxy Screed ET - Low Odour

Introduction

PML Epoxy Screed ET - Low Odour is a four component resin concrete consisting of resin, hardener, filler and aggregate.

PML Epoxy Screed ET - Low Odour is an extra thick heavy duty low odour floor screed suitable for use in the food industry.

PML Epoxy Screed ET - Low Odour is also suitable for forming falls to existing flat floors, providing a rapid cure prior to the application of final finish.

PML Epoxy Screed ET - Low Odour unlike other materials of this type can be mixed and applied without undue effort. This is due largely to the unique blend of aggregates, which disperse easily into the epoxy resin-hardener mixture, giving a dense, impermeable concrete which can be easily applied by trowel or steel float. Very little tamping is required to achieve consolidation and the mixture is free from the stickiness normally associated with epoxy resin formulations.

Typical Applications

Extra thick, heavy duty flooring in food, drinks and pharmaceutical industries. Suitable for abattoirs, dairies, food oil refineries, bedding of generators and other heavy plant and equipment.

Method of Use

Storage

All materials must be stored prior to use under cover, preferably in a dry heated store. Materials stored at low temperatures (below 10°C) become more viscous and thus difficult to mix and apply. Do not store below 5°C.

If crystals are observed due to low temperature storage, contact **APML Technical Sales Department**.

Surface Preparation

Where rising damp is likely to be a problem, an efficient damp proof membrane should be installed beneath the concrete screed.

New Floors

New concrete floors should be **thoroughly dry** (moisture content not higher than 5% measured at a depth of 20mm with a Protimeter "Concretometer") and fully aged before any work is commenced e.g. 28 days.

The surface must be free from laitance and non-polished. A wood float finish is ideal.

If it is necessary to remove laitance this should preferably be done by grit-blasting or grinding. Alternatively **PML Etch** may be applied in accordance with Data Sheet No. 608.

Very smooth and dense floors - i.e. those which have been power floated - may need to be grit-blasted or coarse ground in order to remove surface polish and provide the necessary open texture.

It is essential that any dust created during preparation is completely removed with an industrial vacuum cleaner.

Proprietary floor sealers of the silicate or silicofluoride type **must not be used** prior to application of **PML Epoxy Screed ET - Low Odour**.

Old Floors

All traces of oil, grease or other contaminants must be removed.

The following alternative methods may be used, in order of preference:-

- Grit-blasting, mechanical grinding or planing.
- High pressure hot water cleaning using heavy duty detergent followed by **thorough** rinsing with clean water.
- Mechanical scrubbing with a heavy duty detergent or proprietary floor cleaner followed by **thorough** rinsing with clean water.

After cleaning by methods (b) and (c) above, apply **PML Etch** in accordance with Data Sheet No. 608.

After finally washing down, the floor must be allowed to dry **thoroughly** before applying **PML Epoxy Screed ET - Low Odour**. The use of hot air blowers will be beneficial.

Caution: where silicate or silicofluoride sealers or any type of surface coating have been used it is essential that these are first removed by method (a) above before applying **PML Epoxy Screed ET - Low Odour**.

Certain types of coating may be difficult to remove by grinding and in such cases the **APML Technical Sales Department** should be consulted for advice.

Ambient Temperature

The ambient temperature should be a minimum of 10°C and preferably at least 16°C during application and curing. If necessary heating should be applied sufficiently in advance of the time of application to ensure that the temperature of the floor and surrounding air is at least this level before commencing work.

Priming

Use **PML Screed Primer - Low Odour** (Data Sheet No. C611) which is supplied in a 2kg pack containing separate base and hardener components.

Thoroughly mix the two components together with a palette knife, flat piece of wood or preferably a slow speed drill fitted with a mixing paddle. Apply the mixed material with a lambswool or long pile synthetic fibre roller. Cut in any edges etc. by brush. Spread uniformly over the prepared surface ensuring the substrate is well 'wetted'. Do not apply excess primer or allow the primer to pond as this will cause difficulties during application of the screed.

A 2kg pack of **PML Screed Primer - Low Odour** will cover 7 - 9m² depending on porosity and/or profile of the surface.

The **PML Epoxy Screed ET - Low Odour** must be applied while the primer is still wet or tacky. **In no circumstance should the primer be allowed to cure to touch dry before the Epoxy Screed ET is applied.**

Mixing

PML Epoxy Screed ET - Low Odour is supplied in the form of a pre-measured pack consisting of Resin, Hardener, Filler and Aggregate. Use a Creteangle or similar mechanical mixer. Mix together one container of Resin with one container of Hardener. Stir thoroughly until completely mixed. Add one bag of Filler to the mixed Resin and Hardener, stirring thoroughly until completely uniform. Finally, add one bag of Aggregate and mix thoroughly.

Application of PML Epoxy Screed ET - Low Odour

1. Concrete Repairs - Bedding and Patching

Apply **PML Screed Primer - Low Odour**, used as described in Priming, by brush. Whilst the primer is still wet - i.e within about 4 hours, apply **PML Epoxy Screed ET - Low Odour** in layers of not more than 25mm thickness, consolidating each layer thoroughly before applying the next. Finish with light strokes of a steel float.

2. Floor Screeds

PML Epoxy Screed ET - Low Odour should be laid in alternate bays using screeding bars. The normal recommended thickness is 10mm, but thicknesses up to 50mm may be applied if required without risk of cracking.

Apply **PML Epoxy Screed Primer - Low Odour** mixed as described in Priming, preferably using a lambswool or long fibre synthetic pile roller. Spread uniformly, but thinly over the prepared surface.

Do not apply excess primer, as this will cause difficulties during the application of the screed.

As soon as the **PML Screed Primer - Low Odour** has been applied, apply **PML Epoxy Screed ET - Low Odour** (prepared as described above).

Screed off level and finish with a steel float. When the first bays have set, lay the alternate bays.

NOTE: Under no circumstances should the **PML Screed Primer - Low Odour** be allowed to cure before the Epoxy Concrete is applied.

Cleaning

All tools and mixing vessels should be cleaned immediately after use with **PML Resin Cleaner** (Data Sheet No. 610) acetone or similar solvents.

Essential Procedures

1. Remove as much of the resin and hardener from containers as possible and ensure that materials are fully mixed. Inadequate mixing will lead to soft, uncured patches.
2. Make sure that surfaces are properly prepared as detailed overleaf. Neglect of surface preparation can lead to failure.
3. Observe Health and Safety precautions as given in the Material Safety Data Sheet.
4. Do not add sand, water or any other material not included in the pack.
5. Do not apply to wet surfaces.
6. Do not apply at temperatures below 10°C unless some form of heating can be provided.
7. Do not attempt to split packs.
8. Do not store below 5°C.
9. Do not use on wood.
10. Do not use on overhead or vertical work. Use **PML Epoxy Render**.
11. Do not flood with primer.

Technical Specification

General data for guidance purposes only
(Approximate figures)

Packing	44 kg pre-weighed packs
Density	2.2 kg/litre
Volume of pack	20 litres
Coverage per pack	Approximately 2m ² at 10mm thickness
Pot life	45 - 60 minutes
Cure time at 15°C	Approximately 24-36 hours to accept light traffic, 4 days to accept heavy traffic or chemical exposure
Shelf life	12 months minimum
Storage conditions	Sealed containers under cover Minimum temperature 5°C Maximum temperature 50°C

Physical Properties
(Approximate figures)

Compressive Strength (BS 6319, 7 days)	50 N/mm ²
Tensile Strength (BS 6319, 7 days)	10 N/mm ²
Water Absorption (7 days)	0.1% by weight
Adhesion to Concrete	Stronger than concrete in tension provided surface adequately prepared.

Thermal Properties
(Approximate figures)

Coefficient of linear thermal expansion per °C	25 x 10 ⁻⁶
Maximum service temperature	60°C Continuous 90°C Spasmodic

Chemical Resistance

PML Epoxy Screed ET - Low Odour is resistant to the effects of a wide range of chemicals however it is important that advice is sought from the **APML Technical Sales Department** before the product is specified.

Health and Safety

This product contains substances that are classified as hazardous according to the Chemicals (Hazard Information and Packaging for supply) Regulations, 2002 (as amended). The product is labelled in accordance with these regulations and further information regarding health hazards, handling, storage etc. is detailed in the Material Safety Data Sheet(s). In addition to considering the advice given by APML, all users must conform to the Control of Substances Hazardous to Health Regulations, 1999 (as amended).

All coverages and thicknesses quoted are nominal and will be affected by substrate profile and porosity.

The information in this Data Sheet, given in good faith, is based on results gained from experience and tests. Since application and use are beyond our control, no condition or warranty is given covering the results from the use of our products in any particular case, whether the purpose is disclosed or not, and we cannot accept any responsibility for any loss or damage, howsoever caused arising from the said use.