

Data sheet C720

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Acalor No 10

Introduction

Acalor No.10 is designed as a 5-6mm trowel applied corrosion resistant floor screed and bund lining.

Acalor No.10 provides a particularly fine textured finish making it easy to clean, thereby suitable for use in the pharmaceutical and food industry.

Acalor No.10 is a three component resin system comprising of resin, hardener and filler. It is supplied in preweighed packs or in bulk for on site weighing

Acalor No.10 is also suitable for application to vertical surfaces for wall render and coved skirting.

Acalor No.10 is available in a range of attractive colours.

Typical Applications

Food processing, beverage, brewing, metal finishing, chemical and pharmaceutical industries, effluent pits and water treatment plants.

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 20 mm with a Protimeter "ConcreteMaster") 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 **Acalor No.10**.

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 **Acalor No.10**. 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 **Acalor No.10**.

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 a primer which is made by mixing one unit of Acalor No.10 Mixing Liquid and one unit of Acalor No.10 Hardener.

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.

The mixed 4 kg pack will cover approx. 16m² depending on porosity and/or profile of the surface.

The **Acalor No.10 Screed** 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 Acalor No.10 Screed is applied.**

Mixing

Acalor No.10 is supplied in the form of a pre-measured pack consisting of Mixing Liquid, Hardener and Filler .

Use a Creteangle or similar forced circulation mechanical mixer. Free-fall mixers like those used to mix cement are not suitable.

Mix together one container of Mixing Liquid with one container of Hardener. Stir thoroughly until completely mixed then slowly add the contents of one bag of Filler. Mix until a uniform cohesive material develops (initially a crumbly consistency forms, but mixing should be continued until a more soft putty-like material forms).

For bulk supplies of Acalor No.10: Mix together as above, two parts by weight of Mixing Liquid, one part by weight of Hardener and eighteen to nineteen parts by weight of Filler.

Application of Acalor No.10

1. Floor Screeds

Acalor No.10 should be trowel applied to the primed substrate at the rate of approximately 9.4 - 11.1 kg/m². The normal recommended thickness is 5 - 6mm. Consolidate the material to give a dense screed and finish with a steel float.

2. Render/ Coving

Acalor No.10 can be formed into perimeter coving or as a wall render. Before application of Acalor No.10 to vertical surfaces, the primer must be allowed to develop a high degree of tack.

Surface Dressing

A surface dressing is not necessary when lining tanks or bund areas, but it is recommended that floor and wall surfaces are coated with Concrete Sealer WB Matt (Data sheet B749). The No.10 should be allowed to cure for 24-48 hours before application of the surface dressing.

Cleaning

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

Technical Specification

General data for guidance purposes only
(Approximate figures)

Packing	Preweighed (Primer 4kg) (Screed 29 kg)	Mixing Liquid Hardener Filler	2.67 kg 1.33 kg 25 kg
	Bulk	Mixing Liquid Hardener Filler	25 kg 25 kg 25 kg
Density of mixed screed (approx.)	1.83 kg/litre		
Volume of 29 kg pack (approx.)	15.8 litres		
Coverage per 29 kg pack (approx.)	3.1 m ² at 5 mm thick (9.4 kg/m ²) 2.6 m ² at 6mm thick (11.1kg/m ²)		
Pot life	Primer	30 minutes	
	Screed	45 - 60 minutes	
Cure time at 15°C	Approximately 24 hours to accept foot 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)	83.36 N/mm ²
Tensile Strength (BS 6319, 7 days)	16.87 N/mm ²
Water Absorption	0.3%
Adhesion to Concrete	* Stronger than concrete 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

Acalor No 10 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. For aggressive chemicals the use of one of the APML systems specially formulated for high chemical resistance should be used.

Health and Safety

This product contains substances that are classified as hazardous according to the Chemicals (Hazard Information and Packaging) Regulations, 2002. 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, 2002.

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.