

METZ 94-SL

POLYURETHANE SELF-LEVELLING



DESCRIPTION:

Metz 94-SL is a 100% solids self-levelling flooring system based on polyurethane and concrete technologies which offers a combination of toughness, abrasion resistance, chemical and temperature resistance unequalled by other resin-based flooring systems such as epoxies and polyesters. Metz 94-SL is applied with a smooth finish to a nominal thickness of 3mm.

FEATURES AND BENEFITS:

- **Chemical Resistance**
Excellent resistance to a wide range of acids, alkalis, solvents, oils and fats. Refer Metz Chemical Resistance Chart.
- **Impact and Abrasion Resistance**
Resilient. Absorbs impact and does not shatter like most epoxy and polyester systems. Resists heavy traffic and physical abuse.
- **Temperature Resistance**
Withstands temperatures to at least 100°C . Can be steam cleaned.
- **Non Tainting, Non Hazardous**
Does not give off objectionable odours during application and curing. Components not dangerous for transport or storage.
- **Ease of Application**
Self-levelling formulation. Quick and easy to install.
- **Low Expansion Co-efficient**
Its thermal co-efficient of expansion is much closer to that of concrete than those of epoxies and other resin based self levelling systems meaning that differential movement between topping and substrate is minimised.

RECOMMENDED:

As a flooring system with smooth finish for:

- Chemical Plants
- Food Processing Plants
- Clean Rooms
- Breweries and Soft Drink Plants
- Pharmaceutical Plants
- C.I.P. Areas
- Dairies and Milk Products Processing
- Confectionary Plants
- Commercial Kitchens

NOT RECOMMENDED:

- For floors with falls greater than 1 in 70, or for floors subject to constant steam cleaning. Refer Metz 94-TG or 93PU-TG.
- For coves and vertical surfaces. Refer Metz 93PU-VG.
- For floors requiring high slip resistance. Refer Metz 33-SL.

PHYSICAL PROPERTIES:

(Typical Values)

Density	1.9-2.0 g/cm ³	Maximum service temperature, °C	100
Compressive Strength	50 MPa	Coefficient of thermal expansion, per °C	16 x 10 ⁻⁶
Adhesion to concrete (ASTM C1583)	>1.5MPa (concrete failure)	Shrinkage, %	0.34

Available colours: Red, grey and green as standard.

METZ 94-SL is an industrial finish, not an architectural finish and therefore the cured surface may contain surface imperfections. Steam cleaning and exposure to sunlight may cause lightening of surface colour. Batch lines may also be visible. Surface finish is matt.

COVERAGE:

Theoretical quantities (allow for wastage)

Metz Epoxy Sealer:	100 sq.m per 8kg kit (if required)
Metz 94-SL Scratch Coat:	0.7 kgs per sq. metre for lightly ground concrete (if required)
Metz 94-SL:	6 kg per sq. metre at 3 mm thickness

APPLICATION TEMPERATURE:

For optimum results, maintain a temperature of 10 - 30°C on air and substrate and components during application and curing.

Note: The material temperature should be between 18 and 25°C to ensure proper levelling and adequate pot life.



Acid Proofing & Industrial Flooring • Specialty Ceramic Tiles



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INSTRUCTIONS FOR USE

1. Temperature of Working Area:

For optimum results, maintain a temperature of 10 - 30°C on air and substrate and components during application and curing. The material temperature should be between 18 and 25°C to ensure proper levelling and adequate pot life.

At temperatures below 10°C, the application becomes more difficult and curing is retarded.

At temperatures above 30°C, the working time decreases.

Application in direct sunlight and rising surface temperatures may result in blistering of the coating due to expansion of entrapped air or moisture in the substrate.

2. Surface Preparation:

Metz 94-SL is difficult to lay on falls greater than 1 in 70.

All surfaces must be clean, dry and free from oil, grease, water and other contaminants which may inhibit bond. Concrete on grade should utilise a waterproof barrier beneath the slab.

(i) Primer/Scratch Coat

The use of Metz Epoxy Sealer or a 94-SL scratch coat is recommended when seeking the best possible surface finish. A Scratch Coat should be used when the concrete surface is uneven and/or contains a number of small holds.

(ii) New Concrete

New concrete should have attained a compressive strength of 20 MPa minimum and be at least 14 days old. Surface must be free from laitance, form oils and curing compounds. Grind, abrasive blast or high pressure water blast to remove laitance and provide a uniform, textured surface. Surface moisture content should be less than 5%, contact Metz for details of testing equipment.

(iii) Old Concrete

Concrete must be sound. Remove laitance, old paints, protective coatings and attacked or deteriorated concrete.

Chemically clean surface to remove any contaminants.

Grind, abrasive blast or high pressure water blast to remove laitance and provide a uniform, textured surface.

All structural cracks should be repaired and all slopes re-established - consult METZ for details. Smaller voids should be filled with a Metz 94-SL scratch coat.

All prepared surfaces must be allowed to dry prior to coating application.

All surfaces must be vacuumed to remove any loose deposits and contamination.

(iv) Mild Steel

Abrasive blast to AS1627.4, Class 2.5 minimum.

(v) Edge Detail

Wherever an exposed edge of the material occurs, (e.g. in doorways) an anchoring groove at least 6mm. deep should be cut in the substrate. Consult Metz for full details.

3. Mixing:

Proper mixing is essential for a successful installation.

(i) Mixing Equipment

The correct mixing equipment is essential. The use of incorrect equipment will result in blistering of the coating. A forced action planetary mixer is recommended. A slow speed drill with suitable paddle or a special resinous cements mixer fitted with a suitable mixing blade can also be used. Consult METZ for details.

(ii) Mixing Proportions

By Weight By Volume

94 Liquid	1	3.5 lts
94 Hardener	1.27	3.7 lts
94-SL Powder	5.7	1 x 20kg bag

Note: Same mix is used for Scratch Coat

Under no circumstances should any of these mix ratios be altered

The powder is an active ingredient in the mixture and its proportion cannot be adjusted to suit conditions.

(iii) Mixing Procedure

Remix liquid and hardener prior to use.

Mixing times and procedures are critical and must be carefully controlled.

Mix liquid and hardener together for 10 - 20 seconds only. Add powder gradually to avoid formation of lumps. At completion of powder addition, mix for 2 - 3 minutes. Material must be thoroughly wetted out and uniform in consistency. If using a small drill type mixer to ensure no unmixed material is applied to the floor, transfer to a new container and remix for 30 seconds.

(iv) Pot Life at 20°C

30 minutes

Note: increase in temperature will decrease pot life, as will leaving mixed material in a large mass. Spread out material in a thin layer as soon as possible after mixing.

v) Clean Up

Mixing equipment, tools etc, can be cleaned with xylene, acetone or M.E.K. prior to initial set of cement.

Note: Splashing solvent on freshly laid material will result in discolouration.

Note: Ensure you have the latest mixing instructions, refer www.metz.net.au for most current data sheet version.

4. Installation:

(i) Primer (if required)

Refer to Metz Epoxy Sealer Data Sheet. Apply evenly over surface.

Allow Sealer to dry (4-5 hrs at 20°C) before applying 94-SL.

(ii) Scratch Coat (if required)

Apply thinly to prepared surface using squeegee, trowel or similar. After spreading across surface scrape off all excess.

Allow to set (usually overnight) before applying 94-SL.

(iii) Metz 94-SL

It is recommended that the area to be coated is split into bays, so thickness can be monitored.

Locate mixing equipment as close to the working area as possible.

Immediately after mixing, discharge material onto floor. Apply by screed rake or trowel to a nominal thickness of 3 mm.

Systematically backroll with a spiked roller to remove any high or low spots in the material.

Ensure all finishing is completed within 15 minutes at 20°C.

5. Setting/Curing:

Initial set, at 20°C: 24 hours

Full cure, at 20°C: 7 days

Do not allow water, chemicals or traffic on the material surface for a minimum of 24 hours. For harsh chemical or physical environments, cure a minimum of 72 hours at 20°C prior to exposure.

6. Storage:

Store materials between 10 and 30°C and protect from moisture. Shelf life is min. 6 months for all items.

7. Safety Precautions:

Use chemical goggles, PVC gloves and barrier cream.

Avoid contact with skin and eyes.

Avoid breathing dust.

For full safety precautions, refer to the Material Safety Data Sheets for all components.

Always ensure you have the latest data sheet version, refer www.metz.net.au

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