

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.
- **Quality Accreditation**
The management system governing the development and manufacture of this product is proudly ISO9001:2015 certified.

RECOMMENDED:

As a flooring system with smooth finish for:

- Chemical Plants
- Food Processing Plants
- Clean Rooms
- Breweries & Soft Drink Plants
- Pharmaceutical Plants
- C.I.P. Areas
- Dairies & 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 33-VG or Metz 94-VG.
- For floors requiring higher slip resistance refer Metz 94-TG or use a broadcast aggregate with Metz PU-Topcoat.

PHYSICAL PROPERTIES:

(Typical Values)

Density	1.95-2.05 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, neutral, light grey, dark 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.

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

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. At temperatures below 15°C, an accelerator should be used. Contact Metz for details.

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 holes.

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

(iv) 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.

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	3.65 litres
PU-H1 Hardener	1.27	3.75 litres
94-SL Powder	5.5	1 x 20kg bag

PU accelerator can be added for fast cure

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 it's proportion can only be slightly 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 25 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.

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

Note: As the application method for this product is critical a more detailed "Work Method Statement for laying Metz 94-SL" is available from Metz. A brief summary only follows.

Immediately after mixing, discharge material onto floor. Apply by screed rake or trowel to a nominal thickness of 3mm. 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. If requiring a slip resistant surface, clean, dry sand of the required size is broadcast into the Metz 94-SL as soon as possible after laying. Ensure the working edge is kept free of sand at all times as batches will not join seamlessly together otherwise.

After setting remove excess sand that is not entirely embedded and overcoat with Metz PU-Topcoat.

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 in original unopened containers. At temperatures under these conditions, shelf life is minimum 6 months.

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 Safety Data Sheets for all components.

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

- The customer must comply strictly with the instructions contained in this product data sheet. Metz is not responsible for any advice or variations to this data sheet which are not confirmed in writing.
- If the customer has a claim against Metz in respect of any product supplied to the customer by Metz whether due to a fault in the product or the negligence or breach of contract by Metz or for any other reason:
 - Metz shall not be liable for any loss or damage including consequential loss or damage or loss of profits arising thereby;
 - Metz may at its option replace the defective product free of charge to the customer or refund all payments made to it by the buyer in respect of the defective product; and the maximum liability of Metz shall be the cost of replacing the defective product.