

METZ 44-SL

TWO-PART SELF-LEVELLING EPOXY FLOORING



DESCRIPTION:

Metz 44-SL is a 2-part 100% solids self-levelling monolithic epoxy flooring.

Metz 44-SL provides a smooth finish that is hygienic and easy to clean.

Metz 44-SL is resistant to a wide range of chemicals including dilute acids, alkalis, salts, fats and oils.

If extra abrasion resistance and/or colour stability is required, Metz 44-SL can be coated with Metz 97 Polyurethane.

In areas requiring a degree of slip resistance, Metz Slip Resistant Additive can be added to the Metz 97.

FEATURES AND BENEFITS:

- **Ease of Application**

Two-part self-levelling formulation.

- **Range of surface finishes available**

Standard finish smooth, gloss. Can be topcoated with Metz 97 Polyurethane. Anti-slip finish available with inclusion of Metz Slip Resistant additive.

- **High bond- tensile and compressive strengths.**

- **Solventless**

100% solids formulation.

- **Chemical Resistant**

Excellent resistance to a wide range of acids, alkalis, solvents, salts, oils and fats. Refer Metz Resistance Chart under "EPOXY A".

- **Low Temperature Cure**

Cures at temperatures down to 5°C and high relative humidity.

RECOMMENDED:

As a self-levelling flooring system for:

- Pharmaceutical plants
- Laboratories
- Showrooms
- Clean rooms

NOT RECOMMENDED:

- For areas subject to heavy traffic, heavy loadings and impact. Refer Metz 33 or 93PU products.
- For areas subject to significant spillages of strong solvents or concentrated organic or oxidizing acids.
- For floors with falls greater than approximately 1 in 100.

PHYSICAL PROPERTIES: (Typical Values)

Density g/cm ³ :	1.65 - 1.75
Compressive Strength, MPa:	100
Adhesion to concrete (ASTM C1583):	>1.5MPa (concrete failure)
Flexural Strength, MPa:	58
Coefficient of Thermal Expansion, per °C:	74 x 10 ⁻⁶

COVERAGE:

 Theoretical quantities (allow for wastage)

Metz Epoxy Primer	0.2 - 0.3 kgs per sq metre, depending on absorbency and roughness of surface.
Metz 44-SL	3.4 kgs per sq metre at 2mm thickness
Metz 97	5.5 sq metres per litre at 180 micron wet film thickness (125 micron dry)

APPLICATION TEMPERATURE:

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



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INSTRUCTIONS FOR USE

1. Temperature of Working Area

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

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

All surfaces must be clean and free from oil, grease, water and other contaminants which may inhibit bond.

Remove all standing water. For best results surfaces should be dry.

(i) New Concrete

New concrete should have attained a compressive strength of 20 MPa minimum. Surface must be free from laitance, form oils and curing compounds. The surface should have a fine wood floated or lightly broomed finish and be 28 days old. Lightly abrasive blast, grind or high pressure water blast to remove laitance and provide a uniform, lightly textured surface.

Surface moisture content should be less than 10%.

(ii) Old Concrete

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

Chemically clean surface to remove any contaminants.

Abrasive blast, grind 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 with approved repair material.

As Metz 44-SL is a thin coating, it will not mask any surface defects and will reflect irregularities in the substrate.

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

3. Mixing

a) Mixing Equipment

Mechanical mixing is recommended. A special resinous cements mixer or mortar mixer are suitable. Smaller quantities can be mixed using a heavy duty drill with a suitable paddle. Consult Metz for details.

b) Mixing Proportions

Metz Epoxy Primer	By Weight	By Volume
Liquid	1.85	1.6
Hardener	1	1
Metz 44-SL	By Weight	By Volume
Liquid	7	4.2
Hardener	1	1
Metz 97 (if required)	By Weight	By Volume
Liquid	4.6	4
Hardener	1	1

Slip Resistant Additive (if required) - Add 1-2% by weight to Metz 97.

Note: The liquid to hardener ratios must not be altered under any circumstances.

c) Mixing Procedure

Remix all components prior to use.

For **Metz Epoxy Primer**, mix liquid and hardener together thoroughly for 1-2 minutes.

For **Metz 44-SL**, mix liquid and hardener together thoroughly for 3 minutes.

For **Metz 97**, mix liquid and hardener together thoroughly for 2-3 minutes. Allow to stand for 10 minutes, then remix.

At the end of the mixing period, all material should be wetted out and uniform in colour and consistency.

Material which has begun to set must be discarded.

Do not add any solvent, additive or adulterant to any component or to the mixed material.

d) Pot Life at 20°C

Metz Epoxy Primer 70 minutes

Metz 44-SL and Sealer 30 minutes

Metz 97 2 hours

e) Clean Up

Mixing equipment, tools, etc., can be cleaned with Metz Cleaner, xylene, acetone or MEK prior to initial set of cement.

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

4. Installation

(i) Metz Epoxy Primer

Apply to concrete using roller or squeegee. Ensure total area is covered and surface is completely sealed. Allow primer to set overnight.

(ii) Metz 44-SL

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

Immediately after mixing, discharge material onto floor.

Apply with notched trowel or squeegee to a thickness of 1.5 to 2mm.

Leave material for 5 minutes, then pass spiked roller over surface. Complete rolling within 15 minutes of completion of mixing.

(iii) Metz 97

After 44-SL has set, apply Metz 97 with short nap roller.

5. Setting/Curing at 20°C:

Metz 44-SL

Initial set 12 hours

Full cure 7 days

Metz 97

Touch Dry 4 hours

Hard dry 12 hours

Full cure 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. Safety Precautions

Use chemical goggles, PVC gloves and barrier cream.

Avoid contact with skin and eyes.

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

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