

METZ 94-TG

POLYURETHANE TROWEL-GRADE



DESCRIPTION:

Metz 94-TG is a 100% solids trowel grade 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-TG is applied to a nominal thickness of 6mm.

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**
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 subject to significant abrasion, impact, chemical or thermal stress. Refer Metz 93PU-TG or acid proof tile systems.
- For coves and vertical surfaces. Refer Metz 93PU-VG.

PHYSICAL PROPERTIES: (Typical Values)

Density	2.15-2.25 g/cm ³	Maximum service temperature, °C	120
Compressive Strength	50 MPa	Coefficient of thermal expansion, per °C	10 x 10 ⁻⁶
Adhesion to concrete(ASTM C1583)	>1.5MPa (concrete failure)	Shrinkage	0.2%

Available colours: Red, grey and green as standard.

Metz 94-TG 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.

COVERAGE:

Theoretical quantities (allow for wastage)

Metz 94-TG: 13.2 kg per sq. metre at 6 mm thickness

APPLICATION TEMPERATURE

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



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. 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, 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) 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.

(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.

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.

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 required. Consult Metz for details. Use equipment and procedures that minimise the entrapment of air in the mix.

A timer should be fitted to ensure consistent mixing times.

Mixing Proportions	By Weight	By Volume
94 Liquid	1	1.82 lts
94 Hardener	1.18	1.73 lts
94-TG Powder	11	1 x 20 kg bag

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.

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

(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) 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 to a nominal thickness of 6mm. Screed Metz 94-TG roughly to levels, then finish with steel floats. Metz 94-TG can also be applied by using a screed box and power trowel. Consult Metz for details.

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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