



METZ 33-TG

TROWEL APPLIED EPOXY TOPPING



DESCRIPTION:

METZ 33-TG is a 100% solids trowel applied epoxy topping, applied at a nominal thickness of 6mm. METZ 33-TG can be used in a wide variety of food processing areas, as it resists food acids, fats, oils and cleaning compounds. Use METZ 33-VG for coves and vertical surfaces.

FEATURES AND BENEFITS:

- **Chemical resistance**
Excellent resistance to a wide range of acids, alkalis, solvents, oils and fats. Refer METZ Chemical Resistance Chart.
- **Excellent adhesion**
Tenacious bond to correctly prepared concrete surfaces.
- **Solventless**
100% solids system.
- **Cures under adverse conditions**
Cures at temperatures down to 5°C and high relative humidity.
- **Easily cleaned, slip resistant surface.** Note: Application of a sealer coat will improve cleanability and impermeability of surface.
- **High strength**
- **Can be laid by conventional hand trowel or power trowel methods**

RECOMMENDED:

As a monolithic topping to protect concrete against chemical and mechanical attack.

- Dairies and Milk Products processing
- Breweries and Soft Drink plants
- Confectionery plants
- Food Processing plants
- Meat and Poultry plants
- Chemical plants

NOT RECOMMENDED:

- For areas subject to spillages of strong solvents or concentrated organic or oxidising acids. Refer Metz 93PU or Metz 33-TG Epoxy Novolac.

PHYSICAL PROPERTIES:

	(Typical Values)
Density:	2.0 -2.2 g/cm ³
Compressive Strength:	100 MPa
Adhesion to concrete (ASTM C478):	concrete failure
Flexural Strength	35 MPa
Coefficient of Thermal Expansion, per °C:	35 x 10 ⁻⁶

COVERAGE:

 Theoretical quantities (allow for wastage)

METZ Epoxy Primer	0.21 kgs per sq metre at 0.2mm thickness
METZ 33-TG	12.6 kgs per sq metre at 6mm thickness
METZ 33 Sealer	0.11 kgs per sq metre at 0.1 mm thickness

APPLICATION TEMPERATURE:

For optimum results, maintain a temperature of 5°C to 30°C on air and substrate and components during mixing, application and curing.

At temperatures below 5°C the application becomes more difficult and curing is retarded. At temperatures above 30°C the working time decreases.



CHEMICAL & CORROSION RESISTANT
MATERIALS OF CONSTRUCTION





METZ 33-TG

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INSTRUCTIONS FOR USE

1. Temperature of Working Area

For optimum results, maintain a temperature of 5°C to 30°C on air and substrate and components during application and curing. 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. Remove all standing water. For best results surfaces should be dry. 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 28 days old. Surface must be free from laitance, form oils and curing compounds. Abrasive blast or high-pressure water blast to remove laitance and provide a uniform, 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 or high-pressure water blast to remove laitance and provide a uniform, textured surface. All structural cracks should be repaired and all slopes reestablished with approved repair material (e.g. Metz 10 Epoxy Concrete). All surfaces must be vacuumed to remove any loose deposits and contamination.

(iii) Edge Detail

Where ever an exposed edge of the material occurs, (e.g. in doorways) an anchoring groove at least 10mm deep should be cut in the substrate. Consult Metz for full details.

3. Mixing

a) Mixing Equipment

Mechanical mixing is recommended. A special resinous cements mixer or mortar mixer is 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 33-TG	By Weight	By Volume
33 Liquid	2	1.79 Lts
33 Hardener	1	0.95 Lts
33-TG Powder	19-20	20 kg (1 bag) When hand trowelling, for an easier to use mix it is possible to increase liquid to 1.88 litres, hardener to 1.0 litre with the 20kg bag of powder.
METZ 33 Sealer	By Weight	By Volume
33 Liquid	2	1.9
33 Hardener	1	1

**Notes: Liquid and Hardener for 33-TG and 33 Sealer are identical.
The liquid to hardener ratios must not be altered under any circumstances**

c) Mixing Procedure

Remix liquids prior to use.

For METZ Epoxy Primer and Metz 33 Sealer:

Mix liquid and hardener slowly and thoroughly for 1-2 minutes.

For METZ 33-TG: Mix liquid and hardener together thoroughly for 1 - 2 minutes. Add powder gradually with constant stirring. Mix for 3 - 5 minutes. 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 33-TG	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.

e) Clean Up

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

4. Installation

(i) **METZ Epoxy Primer** Apply to concrete using squeegee then back-roll with short nap roller. Metz 33-TG can be placed whilst the primer is still tacky. If the primer has hardened, consult Metz. Do not apply Metz 33-TG topping.

(ii) **METZ 33-TG** Material should be placed immediately after mixing. Do not let the mixed material remain in mixing vessel. Spread Metz 33-TG with screedbox, screed or by hand to desired thickness (nominally 6mm). Use steel float to compact and finish surface. Finishing must be completed within 30 minutes of mixing at 20°C. Consult Metz for screedbox and power trowel directions.

(iii) **METZ 33 Sealer** If a sealer coat is required, apply within 24 hours to hardened 33-TG surface. Apply thinly by squeegee, remove excess, then backroll with short nap roller. Do not apply too thickly as this will reduce slip resistance of surface.

5. Setting/Curing:

Initial set at 20°C:	12 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. Safety Precautions

Liquid and Hardener

Use chemical goggles, PVC gloves and barrier cream. Avoid contact with skin and eyes.

Powder

Avoid breathing dust. Ensure adequate ventilation.

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

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