



# METZ 33-SL

## SLIP RESISTANT EPOXY TOPPING



### DESCRIPTION:

METZ 33-SL is a 100% solids epoxy resin based flooring system which provides a textured, slip resistant surface. METZ 33-SL 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. METZ 33-SL is applied to a nominal thickness of 3 mm. After broadcasting aggregate and application of a seal coat the final thickness is 4 - 5 mm.

### FEATURES AND BENEFITS:

- **Sealed, slip resistant surface**  
Provides safe, highly textured surface.
- **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.
- **Ease of application**  
Flowable consistency enables quick, easy application.

### RECOMMENDED:

As a monolithic topping to protect concrete against chemical and mechanical attack and to provide slip resistant surface in:

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

### NOT RECOMMENDED:

- For areas subject to significant spillages of strong solvents or concentrated organic or oxidising acids. Refer METZ 93PU-TG or METZ 33TG-Epoxy Novolac.
- Where smooth floor finish is required. Refer METZ 92.

### PHYSICAL PROPERTIES:

(Typical Values)

|   |                             |
|---|-----------------------------|
| Density:                                  | 1.9 - 2.0 g/cm <sup>3</sup> |
| Compressive Strength:                     | 100 MPa                     |
| Adhesion to concrete (ASTM C478):         | concrete failure            |
| Flexural Strength                         | 58 MPa                      |
| Coefficient of Thermal Expansion, per °C: | 74 x 10 <sup>-6</sup>       |

### COVERAGE: Theoretical quantities (allow for wastage)

|                               |   |
|-------------------------------|---|
| * <b>METZ Epoxy Primer</b>    | 0.21 kgs per sq metre at 0.2mm thickness  |
| <b>METZ 33-SL (Base Coat)</b> | 5.9 kgs per sq metre at 3mm thickness   |
| <b>Broadcast Aggregate</b>    | 6 kgs per sq metre  |
| <b>33 Sealer</b>              | 0.42kgs per sq metre at 0.4mm thickness for standard 18/40 aggregate.<br>Allow extra if coarser aggregate used. |

\* Note: Primer may not be required on new (at least 28 days old), good quality internal concrete surfaces that have been track-blasted. Consult Metz for details.

### 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.

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





# METZ 33-SL

## SLIP RESISTANT EPOXY TOPPING



### 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.  
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. Surface must be free from laitance, form oils and curing compounds. The surface should have a finewood floated or lightly broomed finish and be 28 days old. Abrasive blast to remove laitance and provide a uniform, textured surface.

##### (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.  
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 Festo 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 33-SL        | By Weight | By Volume    |
| 33 Liquid         | 2         | 3.84 litres  |
| 33 Hardener       | 1         | 2.03 litres  |
| Powder            | 7         | 15kg (1 bag) |
| 33 Sealer         | By Weight | By Volume    |
| 33 Liquid         | 2         | 1.88 litres  |
| 33 Hardener       | 1         | 1            |

**Note: Liquid and hardener for 33 Sealer is same as for METZ 33-SL.**

**Note: The liquid to hardener ratio must not be altered under any circumstances**

##### c) Mixing Procedure

Remix liquids prior to use.

**For METZ Epoxy Primer and 33 Sealer:**

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

**For METZ 33-SL:**

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-SL and Sealer | 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 short nap adhesive roller or nylon bristle brush. Metz 33-SL can be placed whilst the primer is still tacky. If the primer has hardened, consult Metz.

##### (ii) METZ 33-SL

Material should be placed immediately after mixing. Do not let the mixed material remain in mixing vessel. Spread METZ33-SL with screed rake, screed or by hand to desired thickness (nominally 3mm). Use spiked roller to level and aid air removal. Finishing must be completed within 30minutes of mixing at 20°C.

##### (iii) Broadcast & 33 Sealer

Within 30 minutes (at 20°C) of applying METZ 33-SL, broadcast the aggregate into the 33-SL. Apply to refusal (approximately 6 kgs per sq.m.). Spread evenly. Do not allow to clump. Next day remove excess aggregate by vacuuming, then apply 33 Sealer by short nap roller. Ensure sealer covers all exposed aggregate.

#### 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.

- The information contained in the Metz Data Sheet is based upon results of controlled tests and practical experience and is offered in good faith to assist in the correct usage of the material to which it refers.
- In the event of any product sold or agreed to be sold by Metz Pty. Limited not complying with the express terms of the Metz Data Sheet at the time of sale Metz Pty. Limited will, at its option, replace the defective product free of charge to the buyer, or will refund all payments made to it by the buyer in respect of the defective product, and this shall be the limit of its obligation.
- Metz Pty. Limited hereby excludes all liability for any loss or damage, including any consequential loss or damage, arising from the use of, any defect in or failure in the performance of any product supplied by it including, without limiting the generality of the foregoing, any such loss or damage as aforesaid arising from any surface preparation for, the mixing of and/or the application of any such product.
- Any express or implied condition, statement, representation or warranty, statutory or otherwise, not stated in writing is hereby excluded.

REV 08/04

**METZ PTY LTD**

A.C.N. 069 454 075

12 Turbo Road, Kings Park, NSW 2148

Facsimile: (02) 9671 4292

Phone: (02) 9671 1311

6 University Place, Clayton North, VIC 3168

Facsimile: (03) 9561 6944

Phone: (03) 9561 6144

**Distributor ENGECON SPECIAL PRODUCTS CO., LTD.**

125/7 Moo.5 Jangwattana Rd. Prakkret

Nonthaburi 11120 Thailand

Tel: (662) 962-1171-4, (662) 962-2581-4

Fax : (662) 962-1175, (662) 962-2585

E-mail : info@engecon.com www.engecon.com